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**CHINA,**

**ITS**

**COSTUME, ARTS,**

**&c.**

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**VOL. IV.**

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**Printed by S. GOSNELL, Little Queen Street, London.**

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California



*A. Freschi sculpsit*

# CHINESE LADY & FAMILY.

*Pub. 4. 14 April Buxby II. Stockdale 41 Pall Mall*

# CHINA:

ITS

## Costume, ARTS, MANUFACTURES, &c.

EDITED PRINCIPALLY FROM THE ORIGINALS IN  
THE CABINET OF THE LATE

M. BERTIN;

WITH

OBSERVATIONS

*EXPLANATORY, HISTORICAL, AND LITERARY,*

By M. BRETON.

---

TRANSLATED FROM THE FRENCH.

---

IN FOUR VOLUMES.

VOL. IV.

*EMBELLISHED WITH PLATES.*

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# CHINA,

## ITS COSTUME, ARTS,

&c.

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**A CHINESE WOMAN, WITH HER CHILD-  
REN, IN HER INNER APARTMENT.**

**T**HE ingenious missionary, Father Amyot, observes, in his Answer to De Paw's clever but erroneous Researches on the Egyptians and Chinese, "It is no uncommon assertion of different writers, that the women of China are treated like slaves, merely with a view to rail against the authority which is placed in the hands of parents there: but these tale-bearers would be sadly on the defensive,

if it were proved to them, which could be very easily done, that, taking all circumstances together, the sex, in China, enjoy more of that credit, that consideration, that ascendancy, that power, and that authority which tend to insure the happiness of their whole lives : as daughters, they must obey their parents ; as wives, submit to their husbands ; as widows, be guided by their sons ; but a father, a husband, a son, confide to them all which is esteemed most valuable ; place entirely in their hands, all domestic affairs ; undertake nothing out of doors without having first obtained their approbation ; straiten themselves to procure them pleasures, and practise no concealments, except of such things as might pain them. The pictures which are drawn in Scripture, of the Jewish manners on this head, give tolerably accurate ideas of those of the Chinese."

This opinion, which many readers would be tempted to prove paradoxical,

is precisely that of an Asiatic, who, a few years ago, travelled in Europe.

Mirza-Abou-Taleb-Khan, who was born in the province of Oude, of Mahometan parents, and entered into the East India Company's service, came to London in 1799, and left it again in 1801, after having met the most distinguished reception, at court and elsewhere.

He composed a poem, in the Persian language, on the metropolis of England, and a prose treatise, in his mother-tongue, on the freedom of the Asiatic women, compared with that of the English women. He adduces some very ingenious coincidences which are replete with acumen.

Mirza-Abou-Taleb-Khan attributes our mode of living, in Europe, to the dearth of house-rent, the diminutiveness of our apartments, and to the great ex-

penses consequent on a large establishment of servants; whereas, in the East, all those enjoyments may be had at a very trivial cost.

In Asia, he remarks, the women inhabit, exclusively, the finest part of the house; they are not every moment and minute subject to the intrusion of a husband, who is a spy upon, and controls all their actions; if they wish to see a female friend at home, the husband takes his meals alone, in his *muzdannah*, or private room, and he is interdicted, for days together, going into the apartment appropriated to their use: the husband, on his side, enjoys, in his *muzdannah*, the most unlimited freedom.

The Chinese women are very assiduous; at home they are always employed at the needle or embroidery. Mr. Barrow has, perhaps, been induced to think otherwise, from the answer which one of the principal mandarins made him: that

officer having on a silk waistcoat of very elegant embroidery, he asked him if it was worked by his wife; the mandarin seemed surprised and offended at such a question.

This anecdote, however, proves nothing either way; for an exception never destroys a general rule. Besides, it might still be a question whether that part of the dress were embroidered or done in the piece; in the latter case, the mandarin's astonishment would be nothing extraordinary.

Not only the works of the missionaries, whose situation and character give them an access to the women, which is proscribed to other travellers, but the Chinese poems and books, prove how much industry is esteemed in the fair sex. In proof of this I shall quote some fragments of a Chinese ballad :

“ In vain is the female’s apartment inaccessible to public view ; if irregularity finds its way into it, the news of it spreads far and wide with rapidity ; it is a fire, of which those who are not near enough to see the flames, are sure to perceive the smoke.

“ Employment is the guardian of female innocence : do not allow women time to be idle ; let them be the first dressed and the last undressed all the year round.

“ No in-door household work is repugnant to a modest and sensible woman. The shuttle and the needle are only the occupation of her leisure ; the neatness of her house is the work of her cares ; and it is her glory, either to attend a sick person, or to prepare a repast.

“ The pearls and precious stones, the silk and gold, with which a coquette so studiously bedecks herself, are a trans-

parent varnish, which makes all her defects the more apparent.

“ A hopeful reliance a family has, on a young girl with carmine lips and painted cheeks! The more she resembles an idol, the less will be the number of her worshippers.”

The lady represented in the engraving, is of high rank: not only her own and her children's costume are correct, but that of the decoration of her room also. She is seated on a cushion in one of the alcoves where the beds are placed at night; the further end of this kind of recess is hung with tapestry.

In this apartment are two windows opening to a Chinese garden. At one of the windows the head of the oldest daughter is perceived; on a kind of table near the mother, are a tea-pot, cups, and every preparation for getting tea ready: the saloon is ornamented with



large looking-glasses and pictures : on the left is a chimney in the Chinese style ; the fire-place consists of four pillars, with a wide space between each : on the right is one of the porcelain jars, on which the Chinese often sit, instead of chairs.

In summer, it is customary to place in the chimney, a square vase, in which grows a dwarf tree ; in winter they seldom make fires, except in close stoves. They scarcely ever burn wood, but coal, which is brought from the mountains of the province of Canton ; before they use it, it is generally prepared, by mixing the coal-dust with clay, which they also make into square bricks.

Wood is rather scarce in China ; that which they fell in the mountains and neighbouring islands of Tartary, is almost entirely employed in building junks and boats.

“For fuel,” says a missionary, “the coal-mines and the art of making the fire, render the scarcity of wood, in places distant from the mountains, almost imperceptible.”

We have already had occasion to observe, that the Chinese are very fond of their children, and take all possible care of them. At the birth of a child, and particularly of a son, the wealthy make great demonstrations of joy. They boil a large quantity of hen's and duck's-eggs hard, prepare rice, and send presents of various dainties to their friends and relatives. This is called, in the Chinese tongue, literally, the *downy-beard feast*.

At the close of the third day, the child is washed; this species of ablution is the occasion of new feasts. Hundreds and thousands of eggs are roasted and painted all sorts of colours: they are called *third-day eggs*.

The relations and friends, in their turn, now come to present the same kind of eggs, and all sorts of pastry and sweet-meats. It is almost unnecessary to point out the singular analogy which there is between these customs and the entertainments which are usual at our christenings.

A Chinese philosopher has lamented, in a laughable strain of gravity, the great number of fowls and ducks which are thus destroyed. "Are they not afraid," says he, "that the prayer which they offer for long life to the new-born infant, will be indignantly rejected by the gods whom they address? In soliciting a lengthened succession of happy days for his son, it would be proper to permit the same to the number of living creatures which are destroyed. To obtain this son, eating any thing which has life, was abstained from. (When the Chinese are desirous of children, they think they shall obtain them by solemn fasts.) If people

acted consistently, the same abstinence should be continued to obtain its preservation."

Alas! that the resolution with which we commenced this work, of noticing whatever related to the manners and customs of China, should constrain us to advert to the detestable indifference with which some of the Chinese commit the crime of infanticide! It is mostly at Peking, and in the great towns, that we find unnatural parents expose, under cover of the night, in the middle of the streets, their new-born infants, which they apprehend it will not be in their power to bring up.

Every morning, as regularly as it comes, five rubbish-carts, each drawn by a buffalo, traverse the streets of Peking, and pick up the wretched victims of parental cruelty, and also the children who have died a natural death, whose bodies are thus abandoned to avoid the expense.

of interment. The children which are dead, are taken to a public cemetery; those which are still alive, are taken to the Yu-Ing-Tang, an extensive charity, where physicians and nurses are kept at the expense of the state. The organization of this establishment is nearly on a footing with those of the Foundling Hospitals of London and Paris.

It is possible that the drivers of these carts may consider dead, some of the children, in whom the vital spark is not altogether extinct. The Romish missionaries settled there, take, alternately, the duty of this gloomy asylum of the dead; to choose from among them the most lively to make future proselytes: and to those who are at the last gasp, they, at any rate, endeavour to administer baptism.

In the country, and particularly among the mariners and fishermen, who pass their lives on the water, it too often hap-

pens that the unhappy infants are consigned to the genii of the waves : they fasten a great gourd round their neck, to keep the head above water, and they thus leave them to their fate. This horrid custom likewise prevails in some countries of India : they are almost always girls, of whom poor families endeavour to rid themselves, because they are more difficult to bring up and settle than boys.

Notwithstanding this, the lower class of females in China are in no wise inferior to their husbands in industry and in bearing fatigue ; they sometimes drag the plough in light lands, where very great exertion is not requisite, because they consist of rice-fields, which are under water the greater part of the year—and the husband takes the less arduous part of holding the plough.

If the condition of the Eastern females appear extraordinary to us, the Asiatics, on their part, look upon the education

we bestow on ours, absurd and extravagant. It is undoubtedly with a view to prevent the Chinese women being influenced by examples which might have a dangerous effect on their minds, that foreign females are strictly prohibited entering China. The Russian legation which visited that empire in 1719, had women in its suite. The mandarin, who went to receive it on the frontiers, peremptorily refused admittance to the women, saying they had enough of them at Peking already.

METHOD OF GRINDING RICE BY TWO  
MULES.

RICE is as necessary to the subsistence of the Chinese, as wheaten bread is to that of the Europeans. When two friends meet and salute, they reciprocally inquire *how they have eaten their rice*; it is their mode of asking after the health of any one. The Chinese speak of eating such a person's rice, to signify that they derive their means of subsistence from him. A missionary, who was put to the torture at the time of the late persecutions, protested that his sole object in coming to China was to propagate the evangelical faith, without any view to his personal interest: the mandarin and his executioners were determined to compel him to say that he had come there to procure rice, and they put him to the most cruel



tortures, which the missionary bore with exemplary fortitude.

The monosyllable *fan*, which signifies boiled rice, makes part of every word in the Chinese language, which has any reference to the act of eating. *Tche-fan*, which is the general denomination of any meal, literally means to eat rice; breakfast is called *tsao-fan*, or morning rice; supper, *ouan-fan*, or evening rice.

They however add to rice other grain, of a similar description, particularly *how-leang*, or great millet. Wheaten bread is scarcely ever used; although that grain is cultivated in China, it is only in the northern provinces that there are any corn-fields.

The method of grinding corn and reducing it to flower, is the most simple which can be conceived: the mill consists of a flat circular stone, placed horizontally like a mill-stone, on which the

workman crushes the grain, by means of a stone cylinder. Sometimes windmills are made use of for the same purpose; they are composed of a small fixed millstone, and another which is turned by one man.

With wheaten flower they make rolls, which are done in a *balneum-Mariæ*, in a quarter of an hour, and are very tender. (Sea-water was formerly distilled for use in the *balneum-Mariæ*, and which was supposed to give the preparation greater effect: thence was derived the term *balneum-maris*, or sea-bath, by absurd corruption now made Mary's bath.) Europeans find these cakes difficult of digestion, they therefore toast them before they eat them. In the province of Canton also, they make a kind of muffin of corn, which is not unpalatable, particularly when mixed with certain herbs calculated to sharpen the appetite.

The Chinese likewise reduce the farina to vermicelli: rice, millet, and other grain, as well as wheat, are sometimes made into flower, from which they make muffins and vermicelli.

Rice flourishes in the southern provinces; also in the tributary country called the Kingdom of Laos. It will only grow in a marshy soil.

The annual overflow of the rivers is the most favourable occurrence which can possibly take place for this species of culture: the waters, when they subside, leave a sediment, which adds wonderfully to the richness and fertility of the land. Some days after this mud has been deposited, they prepare for sowing the rice. The first step is to surround a bed of earth, with a small ridge of clay, so as to turn off the water, and make the ground somewhat drier; it is then ploughed and harrowed, and the grain, which has been previously steeped in

muck and urine, is sowed in the furrows. The Frontispiece to Vol. I. representing the Feast of Agriculture, contains a correct figure of a Chinese plough, than which nothing can be more simple.

After this operation has been performed, the ground is inundated, either by canals, whence the water is brought from a more elevated source, into the field which requires watering, or by means of a chain-pump, of a bucket fastened by a pole and chain at the end of a transverse beam, similar to those which are seen in the market-gardens round London; or of a bowl with double cords attached to two sides, and by which two men, standing at each side of a pond, on high ground, thus throw from the lower to the more elevated situation.

A chain-pump and a scoop-wheel are also used to raise water for agricultural purposes. The scoop-wheels are very common in the southern provinces, are

made entirely of bamboo, put together without a nail, and are from fifteen to forty feet in diameter. They approximate nearest to the Persian, or bucket wheel, from which, however, they differ materially in the principle and construction.

A wheel, thirty feet in diameter, will throw up nearly seventy thousand gallons of water in the course of twenty-four hours.

The young leaves of the rice are visible above the water, in a very few days after it has been sown. When the rice is seven or eight inches high, it is pulled up by the roots; the top is cut off, and every plant is inserted separately, in small furrows, made by the plough, or in holes made with a stick, about six inches apart. The field is again inundated, and the harvest is duly expected, which, in good years, produces a proportion of fifteen or twenty for one. M. de

Guignès says, however, that the average is only ten for one.

There is a kind of rice which is red, and does not require so much humidity as the white: it is cultivated in the mountains, but its quality is not so good, and it is scarcely used for any thing but brewing and making wine and brandy. Rice seldom exceeds three feet in height, in the grounds where it is cultivated.

The following extract is from *Observations on Physics and Natural History by the Emperor Kang-Hi*. (See *Mémoires concernant les Chinois*, tom. ix. page 477.)

“It happened one year, in my land at Fong-Tsi, that a stem of rice came to the ear, and ripened, long before the rest. This indication of nature was a ray of light to me; I ordered the rice of this early ear to be gathered separately, and sowed in a particular soil. All the produce of

it, for several years, has ripened much sooner than any other."

Two harvests are gathered within the year in China: but the cultivation of rice is subject to many risks. When the plant is young, the least drought makes it droop; when it is nearly ripe, an inundation is no less fatal to it; and the birds and locusts, of which there are more in this country, than an European could be brought to believe, assail rice in preference to all other harvest grain.

The rice is cut three moons after it has been transplanted: the Chinese use, for that purpose, a small sickle, with teeth like a saw. They fasten two sheafs to each end of a bamboo, and they are laid on the floor of the barn, where the grain is to be separated from the straw; which is done, either with a flail, or by cattle trampling upon it.



## RICE MILL.

*Pub. 14 April 1812 by LL. Stockdale 41 Pall Mall*



THE VIBRI  
ALBOPHAGUS

There are several methods of crushing rice, that is, of separating the farinaceous part from the husk : the most common mode consists in pounding the grain, in a sort of mortar, with a conically shaped stone attached to the extremity of a lever. The mortar is a great earthen vase, or hollow stone. The lever is set in motion by the alternate pressure of a man's feet.

This pediculation is shewn in the Plate at page 39, Vol. II. The women are, by this method bruising with a pestle, that kind of the farina of rice which is used in the manufactory of paper from bamboo.

In extensive works, they make use of mill-stones set wider apart, than when it is wished to reduce the grain to flower. The turning stone is made to act by two mules, which are carefully blindfolded, to prevent their sight from being harassed and dizzy with constantly going round : see the annexed Print.

As fast as the grain is cleared from the husk, a fresh supply is added through the hopper, the square kind of funnel, which is seen above the wooden cover which surrounds the rotatory stone. Water-mills are sometimes employed for the same purpose.

The grain being thus stripped of its husk, is taken to market; but before it is dressed it undergoes a further preparation. It is rubbed in a furrowed earthen jar, filled with water, in which it is well washed, to cleanse it from every impurity. Rice takes only a quarter of an hour to dress; it is for that purpose put into an iron pan full of water, which covers all the grains, to prevent their sticking one to another.

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## SIFTING RICE.

*Pub.<sup>d</sup> 14 April 1812 by T. Stockdale & Pall Mall*

## METHOD OF WINNOWING RICE.

1. *A Man winnowing Rice with a Sieve set in motion by a Lever.*
  2. *A Man cleansing the Rice through a Sieve.*
- 

**MR.** Barrow discovers, in the culture of rice, one of the causes of the immense population of China. A single acre of land, sown with rice, produces sufficient for the consumption of five persons for a year, allowing two pounds and a half a day to each. An acre planted with cotton, produces sufficient for the clothing of two or three hundred persons.

When the rice is crushed, the bran necessarily remains mixed with the farinaceous substance; to remove this useless husk, the rice is winnowed, by the action of a kind of mill-stone, supported by a

lever, as is shewn in one part of the Print; or else it is passed through a sieve, as is shewn in the other part of the same Print.

The necessity of providing for so extensive a population, has rendered the imagination of the Chinese fertile in resources. They cultivate the steepest mountains to the very brink of the precipice. We have already seen how they turn the almost inaccessible mountains to advantage, for the produce of tea. There are some on which they have constructed terraces, to the number of twenty or thirty, each three or four feet high.

These mountains, say the missionaries, are not generally rocky, as in Europe. The soil is light, porous, and easy to dig; and even so deep in several provinces, that they may be excavated to the depth of three or four hundred feet without finding rock.

Where the mountains consist of rock, the Chinese loosen the stones, which they convert into little walls for supporting the terraces; they then level the good earth, and sow it with grain. So hazardous an undertaking evinces how laborious the people of China are. All the terraces are provided with water by artificial irrigation.

Mr. Barrow has observed, somewhat too lightly, that this method of cultivating the mountains is not so common in China, as the missionaries assert; saying that he had only noticed it on one occasion in their whole route, and then that it was to so trivial an extent, as not to be worth speaking of. This ingenious and elegant traveller should have considered that the British embassy travelled by water, in the most uniformly flat countries of the whole empire, where there were scarcely any mountains whatever; consequently they had no opportunity of seeing any such plantations except on the



Canton side. The Dutch ambassadors, who went the greater part of their route by land, and in a different direction, saw many heights thus cut into terraces.

At any rate, this is not a new method even in Europe; it is practised successfully in the Vaud country between Lausanne and Vevay; and in the departments of France, situate on the left bank of the Rhine. In short, without traveling so great a distance, at one of the gates of Paris may be seen the *Bons-Hommes* (Good Men) mountain, where similar terraces have been made.

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**CHINESE WORKING MAN. CHINESE PEASANT.**

*Pub<sup>d</sup> 14 April 1812 by LI Stockdale 41 Pall Mall*

**A LABOURING MAN WITH AN UMBRELLA  
—A PEASANT IN HIS RICE-STRAW  
CLOAK.**

---

It is evidently after the model of the Chinese fan, that those of our own females, which were so much in vogue some few years ago, and which are now almost laid aside, were made.

We seem also to have been indebted to the Chinese for the plan of our umbrellas; the principal difference is that, instead of whalebone, the Chinese use bamboo; their umbrella sometimes consists of a mere tissue of canes, without any other covering; and sometimes the cane-work is covered with taffeta.

The Chinese peasants do not neglect the straw of the rice; the greater part

of it is consumed in feeding their cattle, after it has been chopped, which is done also both in England and Germany. The remainder serves for thatching their cottages, or else to make them cloaks.

These cloaks are proof against the heaviest rains: and in this dress it is that the peasantry work their rice-grounds. I have now before me an engraving from an original drawing, or picture, by one of the Chinese brought up in Paris, as mentioned in the Preface—a cultivator, on a kind of sledge composed of four planks and drawn by a buffalo, going over the different parts of his flooded field: his costume is nearly that of the peasant represented in the annexed Plate; but it is impossible to conceive a more singular attitude, or a countenance so absolutely repulsive.

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ALBION LAC

**RICE STRAW CLOAKS. SANDALS OF WOOD & STRAW  
FOOT & BOOT of a CHINESE LADY.**

*Cloak made of Rice-straw, used by the Chinese Peasantry—Outside View.*

*The same—Shewing the Inside.*

*Wooden Sandal.*

*Sandal of plaited Straw.*

*Foot and Ankle of a Chinese Lady, undressed.*

*The same, dressed.*



THE cloak of the countryman in the preceding Plate is composed of three layers of rice-straw; those in the present Plate are formed of only two. The second shews the contexture of the inside; the stalks of stubble are sewed to a clumsy web of the same substance, the meshes of which are very wide.

Independently of the boots or leggings, the peasants wear sandals, which consist either of a wooden sole curved towards the toe, or of a half-sock of woven straw or cane.



✓ The Chinese females of some provinces restrain the growth of the foot, by bending the four lesser toes underneath, and having the great toe of its natural length. An explanation will be found in page 56, Vol. I.

✓ The covering of the leg and foot, which is most generally adopted by the Chinese ladies, is shewn in this Plate.

✓ The Chinese not only make clothes or coverings for the legs with plaited straw or cane, but also habitations in various styles of elegance with the same materials.

✓ The Chinese houses are mostly built of brick; but they frequently construct temporary habitations, formed of mats or bamboo. Some of these dwellings are raised between morning and evening. The emperor himself, when he travels, prefers lodging in tents, although traversing the richest part of his states. All the mate-

rials requisite for constructing and furnishing these tents, are carried on camel-back: this is a remnant of the Tartar manners, which the sovereigns of that dynasty carefully retain, not only from nationality, but to accustom the great nobles to a camp-life.

Mats are employed in China for an infinity of purposes which we are strangers to. Almost the whole of the common people sleep on mats made up as mattresses. As to the beds of the more opulent classes, they consist of cotton mattresses, with satin or taffeta curtains, surrounded by very fine gauze, which does not impede the free circulation of air, but is sufficiently close to keep off the gnats, so troublesome in the southern provinces.

In the northern provinces the bed is made on a raised platform of bricks baked in the sun; at its side is a small stove which, by means of tubes, conveys the heat

to the different parts of the apartment. The smoke evaporates by flues made for the purpose.

In the houses of people of rank, the stove is fixed within the wall, and is lighted on the outside: by this means the bed warms itself.

The Chinese do not, like Europeans, accustom themselves to feather-beds; those who are afraid of sleeping directly on the bare bricks, spread mats on them,

All this preparation is taken away every morning, for it would be very unpolite to expose the bed to the view of strangers; they spread, in its place, carpets or mats of a finer quality.

The Chinese beds, generally speaking, are without curtains, but the wealthy part of the community have them of various cloths, which they change according to the seasons.

Another use to which matting is converted, is for making sails to vessels, which will be adverted to at large in a subsequent chapter.

## HUNTING WILD DUCKS.



THE Chinese prefer the flesh of the duck to that of every other winged animal; they rear immense numbers of them on the rivers. The mariners and fishermen, who pass their whole lives in boats, or on rafts, keep a prodigious quantity of these fowls, and such is their docility that they know their respective owners.

Although the surface of a lake or river is thus covered with several thousand birds, belonging to different boats, and which are all intermixed together, on a signal made from the master of one of the boats, by striking a copper gong, all the ducks which belong to him, may be seen swimming towards him, and perching on the edge of it, without a single stranger going among them.

M. de Guignes explains this singular docility, which is attested by all travellers, and of which he has repeatedly been himself an eye-witness, by observing that the gong of the different boats varying in its dimensions, and not producing the same sound, the fowls have less difficulty in recognizing that of their owner.

Mr. Barrow says, the signal is made by a whistle; but there may be different methods in different provinces.

For the purpose of multiplying these valuable fowls to the greatest possible extent, they hatch their eggs by artificial means, as the Egyptians hatch hen's eggs by the heat of an oven.

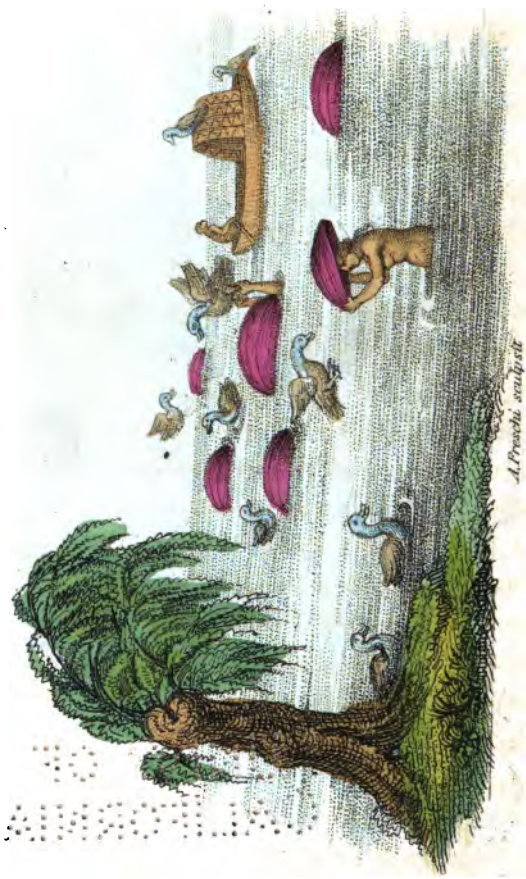
The methods appear to be different, and that of the Chinese seems to be the most easy, and the surest, perhaps owing to the peculiar disposition of the birds, in regard to which it is adopted. After

having collected a sufficient quantity of eggs, a cage of bamboo is formed at some distance from the coast; the bottom of it is spread with a layer of muck and of duck's dung, upon which is placed a layer of eggs, and then alternately a layer of each, until the whole space is filled; by means of a small fire the proper degree of heat, which experience has proved to be requisite, is kept up to the period when the ducklings are ready for hatching; the eggs are then taken out, broken, and the young are confided to old ducks, which adopt, take charge of, and shelter them under their wings. The secret of hatching ducks was made known in Egypt by some Copt families, who transmitted it from generation to generation.

The Chinese sell part of their ducks alive; they kill the others, which they slit and salt, and keep them open with two small sticks to let them dry. In this state, the flesh acquires a venison-like

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**DECORING WILD DUCKS.**

flavour, and tastes more delicately than when fresh.

The manner of hunting wild ducks is very ingenious, and at the same time pleasant to see. The hunters put their heads into large gourds or dry calabashes, in which they leave holes to see and breathe through; they go naked into the water, and swim without suffering any part of them to appear except the gourd upon their head. The ducks, which have been accustomed to see these gourds floating, and about which they play and seek their food, go near them without the least apprehension; the hunter then laying hold of them by the feet, and drawing them under water to prevent their cries, twists their necks, and fastens them to his girdle.

This kind of hunting is known on the Ganges in Hindustan, where it is practised somewhat differently.

The Hindus make use of earthen jars instead of calabashes; they are commonly the earthen vessels which the Banians dress their rice in, and which, not being japed, only serve once. They are then thrown into the river, as useless, and float about in great numbers. The duck-catchers, in like manner, conceal their heads in these earthen jars, and approach their aquatic game, which have no notion of fear, and suffer themselves to be caught without the least resistance.

In the back-ground of the Print is a fishing-boat, on which are two cormorants or fishing-birds. The description of this mode of fishing, and of some others peculiar to China, is made the subject of the following chapter.

LEU-TSE, THE FISHING CORMORANT—  
OTHER KINDS OF FISHING.

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**T**HE cormorant of China is, according to Linnæus, a bird of the pelican tribe, *Pelecanus Sinensis*. It differs materially from another cormorant, *Pelecanus Carbo*, which is found on almost all the European coasts.

In their wild state, these water-fowls assemble in great flocks to fish; they form an extensive circle, which gradually narrows by the birds closing: some flap their wings on the surface of the water, while others dive into it; they thus bring up the fish which they had frightened into the deep holes nearer the bank. The fish there not having the same chance of escape, become an easy prey to their enemies.

Mr. Barrow assures us that we formerly profited by the voraciousness of the European cormorant in England, and that it was trained for fishing; the Chinese and their neighbours appear, however, to be the only nations who practise this method in the present day.

The Chinese fishermen take out with them in the morning ten or twelve of these birds, still fasting, either in light boats, or on bamboo rafts. They make them dive one or two at a time: the cormorant seldom comes up without having taken a fish, and which is often of a very considerable size. To prevent the cormorant swallowing his prey entire, and depriving his master of his profit, he generally has a ring round his neck, which stops any thing from going further down; but the animal is frequently so well trained, that this precaution is unnecessary. The bird faithfully takes his prize to his owner, who, when he has done sufficient for him, lets the cormorant work for himself.



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We must observe, for the purpose of making this kind of fishing perfectly understood; that the whole pelican tribe have long necks, all of which are susceptible of a greater or less degree of dilatation. The pelican also has the faculty of retaining the fish in the lower mandible of its bill; this is composed of a membrane which stretches to a very great extent. The manner of the female pelican feeding her young with the fish she has collected in her pouch, gave rise to the opinion, now ascertained to be fabulous, that this bird nourished her young with her own blood.

The cormorant contains the fish in his throat, that is, in the channel of the œsophagus. To make him disgorge the fish, the fisherman holds the head downwards, and passes his hand over the neck.

Duhalde says that, when the fish is too large for one to manage, the cormorants mutually assist each other—one taking it



by the head and another by the tail, and thus they carry it to their owner's boat together.

A Print contained in his book represents some fishes in that attitude. The learned Jesuit has been deceived by false information : in the first place, the mandibles of the bill are not sufficiently strong to enable the cormorant to hold a fish crossways; and, in the next, it is quite enough to have ever taken hold of a live fish, to be convinced how quickly it slips away; and thus we may aver the impossibility of the statement.

The first missionaries who wrote an account of China, did not always see for themselves. At a time when the gold-fish had not yet been introduced into Europe, Father Leconte published a description of them which is not less false and exaggerated than Father Kircher's account of the hortensia, of which

an extract is given in the former part of this work.

Father Leconte, who, it should be remarked, was refuted on this head by Duhalde, says that the gold-fish are no longer than a finger; that the male is red and the female white; that the tail is not united, and flat, like the tail of other fishes, but shaped like a nosegay; and so delicate are they, that, in giving them fresh water, they must not be touched by the hand. In the whole of this there are as many errors as words. The gold-fish of China are, at least, as hardy as others of the scaly tribe; and may be let fall from a considerable elevation without being hurt; they are only peculiarly susceptible of dirty water. If it is ever so little disposed to corruption, it no longer affords them proper food, and the air which they then breathe through their gills is still more noxious to them.

“The Chinese,” says Duhalde, “have another very simple method of catching fish; they make use of narrow long boats, and nail on the edge of each side for the whole length, a plank two feet in width, on which is a very brilliant white varnish. This plank inclines, almost imperceptibly, to the water’s edge. It is used by night, and is turned towards the moon, that the reflection of the light of that planet may add to its lustre. The fishes easily mistake between the colour of the varnished plank and the water, and frequently, springing up on that side, fall either upon the board, or into the boat.”

The fishes of China are nearly the same in variety as those of Europe; they are lampreys, carp, sole, salmon, trout, shad, sturgeon, cod, &c. One of the most esteemed fish, and which weighs about forty pounds, is what they call Tcho-Kia-Yu, that is to say, the armed-fish. In fact, its back, belly, and sides,

are armed with a succession of sharp scales standing up. It is, according to the missionaries, an admirable fish; its flesh is very white, and it is not unlike veal to the taste.

They have another very delicate species of fish, which the natives call *flower-fish*, on account of its excessive whiteness, and because its black eyes seem as if set in circles of extraordinary brilliant silver. They abound in such quantities in the seas on the side of the province of Kiang-Nan, that they bring up to the amount of four hundred weight of them at a single cast of the net.

The Hoang-Yu, or yellow-fish, attain sometimes so prodigious a size as to weigh as much as eight hundred pounds: they are caught in the lake Tong-Ting-Ilou, and in the river Yang-Tse-Kiang, which runs out of it.

Besides the simple bamboo rafts used for fishing, or for the transport of merchandise, there are rafts of enormous dimensions; these are seen more particularly on the Kiang river.

In the mountains of Se-Tchuen, they cut down great trees, which are fastened together by means of cord, made of osier and bamboo, passed through holes at the ends of the wood; they collect a sufficient number of these trees to make rafts, four or five feet high by ten or twelve wide. The length is indefinite, and proportioned to the wealth of the merchant. Some of these floats are half a league long. All the parts of the raft are flexible, and move as easily as the links of a chain: four or five men manage them in front with poles and oars.

Upon these are built, at certain intervals, wooden houses covered with planks or mats, in which the watermen have their household goods, and kitchen, and

where they sleep. It is not an uncommon sight to see forty of these houses on a single raft. In the large towns, where they stop to find purchasers for their timber, they sell their houses ready made as they stand. In this way they travel by water eighteen hundred miles when they take their wood to Pekin.

All travellers remark on the singular appearance of these Chinese rafts; but it is not necessary to cross the Atlantic, nor even to go out of Europe or of France, to see nearly the same thing. Fleets or trains of floating wood navigate the Rhine, and thence to Holland. They consist of oaks and firs, sixty to seventy feet long, fastened and crossed by long beams. Five or six hundred workmen embark at one time on these floating islands, and are lodged, during the whole passage, in deal cabins.

The consumption of provisions on these voyages from Cologne to Dort in

Holland, is fifteen or twenty thousand pounds of fresh meat; forty to fifty thousand pounds of bread; ten to fifteen thousand pounds of cheese; twelve to fifteen hundred pounds of butter; eight hundred to a thousand pounds of smoked meat, and five to six hundred tons of strong beer. The wages of each man, besides his provisions, is about twenty-seven shillings and six-pence.

### REELING SILK CODS—METHOD OF REARING SILK-WORMS.

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MR. Barrow, in his Voyage to Cochin-China, has written a very curious dissertation to prove that the moderns improperly confound, with the Chinese, the people whom the ancients called Seres, or Sericanians. He adds, that the silks which the Romans made use of, came from Persia, and not from Serica; according to him, the passages of Virgil, Silius Italicus, Claudian, Pliny, Horace, &c. which have been thought to refer to silk, speak of cotton. In fact, those authors mention a woolly substance (for example, Virgil, *velleraque ut foliis depectant tenuia Seres*—Silius Italicus, *lanigeris lucis*—Claudian, *lanigera sylva*—and the *frondium canitiem* of Pliny), and make no mention of any thing which ap-



plies exclusively to silk-worm cods or cocoons.

He maintains, that the introduction of silk into China was accomplished by a colony of Jews; that this valuable manufacture was used in the time of Solomon; and that it was brought from Persia or Media, judging from several expressions of the Bible, particularly in Ezekiel, chap. xxvii. *et bissum et sericum et Chod-Chod, preposuerunt in mercato suo*. The two first words in the Hebrew text have, in the Vulgate version, been translated by *bissum et sericum*, that is, linen and silk; but the translators are not agreed how to render the word Chod-Chod; some writing it pearls, others rubies; these diamonds, those carbuncles.

Mr. Barrow has omitted to specify the particular verse of Ezekiel, which would have been very favourable to his argument; for he must, of course, have trans-

lated contrary to general usage, *Sericum*, by cotton; and *Chod-Chod*, by silk.

It is but just to add, that no writer can offer his suggestions with greater modesty than Mr. Barrow.

The phrase of Justin the historian, *Vestes perlucidæ ac fluidæ Medis*, can only be understood in reference to robes of silk.

Whatever may be the fact, it would be difficult to form an opinion, from the historical monuments of the Chinese, at what period they commenced either to wind off the cods of the wild silk-worms, or to feed them domestically with the leaf of the mulberry-tree.

The wild silk-worms are found in the hottest provinces of China, especially near Canton. They live indifferently on all sorts of leaves, particularly on those of the ash, the oak, and the *fagara*, and

spin a greyish and rarely white silk. The coarse cloth manufactured from it is called Kien-Tcheou, will bear washing, and, on that account, persons of quality do not disdain to wear clothes of it.

7 The oldest native writers attribute the discovery of the silk to one of the wives of the emperor Hoang-Ti. From that period, the empresses have made a point of breeding, rearing, and feeding silkworms, reeling the cocoons, and working the silk. Until the last dynasty, there was, in the gardens of the palace, a little forest of mulberry-trees. The reigning empress presided every year at a ceremony analogous to that of the Feast of Agriculture. The empress, accompanied by the emperor's other wives, and the principal ladies of the court, repaired to this forest in great solemnity, and gathered with her own imperial hand the leaves of three branches which her attendants lowered to within her reach.

The finest pieces of silk which were made immediately under her own inspection, and at which she worked herself, were destined for the ceremony of the great sacrifice to Chang-Ti.

In the *Recueil des Mémoires sur la Chine*, a strange motive is assigned for the silence of Chinese authors as to the precise epoch at which they began to manufacture the silk produced by the wild worm:

“Whether the men of letters had imbibed a prejudice against the wild silkworms, they never speak of them but casually; whether also the government does not choose, either to encourage, or to extend the method of breeding them; not a word is mentioned respecting them in the grand agricultural collection.”

I have thought it the more essential to give this extract, taken from the Missionaries' Collection, as scarcely a word, as

one may say, is to be found on the subject in Duhalde, or Lord Macartney. What seems to me even still more extraordinary, is, that entomologists treat but very superficially of the habits and modes of life of the wild silk-worms, while they dwell in minute detail on the method of rearing them in Provence.

It must not be conceived that the worms bred in the open country require scarcely any care, and that they are more easily managed than those of the mulberry-tree.

When the young larvæ have left the egg, care is taken to suspend bundles of millet-pith to the tree where they harbour, that they may get the more readily to the leaves of the tree. These worms, besides that they are naturally tender, have great numbers of enemies. The ants, and particularly those which have wings in the season, are very fond of them. The mode of protecting them

from these marauders, in their first stage, is to surround the ash or *fagara* in which they are, after a heavy rain, with a trench full of water; but the surer method is to surround the base of the large branches, the leaves of which they are feeding upon, with a vessel full of water.

To secure them against birds, the trees are covered with nets of very small meshes. It is most difficult to protect them from the wasps and hornets, which fall on the larvæ, cut them in two and suck them; they even get at them through the net. Artifice is necessary to be had recourse to for the purpose of destroying these; they are attracted into the vicinity by sticks smeared with honey, when they are burnt with wisps of straw as soon as a great number has been collected.

Rain is not inimical to these insects; it spreads a freshness in the air, which is very grateful to them, and is particularly

acceptable, as it drives away their enemies.

Care must be taken to proportion the number of insects left on the trees, to the quantity of leaves intended for their support. They have four skins from four days to four days, and attain twice the bulk of those which are in a domestic state.

It is between the nineteenth and the twenty-second day of their existence that they undertake the great work of spinning their cod. They curve a leaf into a kind of cup, and then form a cocoon as large and nearly as hard as a hen's egg: this cod has one of its ends open, like a reversed funnel. It is a passage prepared ready for the butterfly which is to come out; by the aid of the juice with which it is moistened the humid threads give way to its efforts, and it releases itself from its prison in due season.

Those cocoons which are pierced are not reeled off; they are obliged to be spun like the egg-cods of Provence, which are reserved purposely for the production of the butterflies, and to obtain their eggs, which are called *graines*.

It has been previously mentioned, that the article manufactured from it would bear washing; with this silk also, the strings of musical instruments are made, because it is stronger and more sonorous.

Two broods of the wild worms are sometimes obtained; one in the spring, and the other at the end of the summer.

The oak-worms are slower in making their cocoon, than those of the *fagara* and ash, and they set about it differently: instead of bending a single leaf, they roll themselves in two or three, and spin their cod; it is larger, but the silk is inferior in quality, and of course not so valuable.



The wild cods are so strong and so compact, that the insects have great difficulty in extricating themselves, and therefore remain inclosed from the end of the summer to the spring of the following year. "It has been known," say the missionaries, "that the cocoons which have been forgotten one year, have put forth their butterflies the next; and it is perfectly ascertained that the change of the chrysalis can be very much retarded in summer."

The Chinese readily distinguish the cods which contain the male, from those which contain the female. This knowledge is of consequence when they are about to separate the cods intended to produce eggs, for the purpose of having a great number of females, as they attract a sufficient quantity of males.

These butterflies, unlike the domestic insect, fly very well. The males are permitted to go at liberty, but care is taken

to retain the females, which are laid hold on the moment they come out of the cod, and fastened by one of their wings with a silk thread, to a large piece of the pith of the great millet (*Milium arundinaceum*. It is the spongy substance to which the seeds adhere.)

The number of eggs deposited does not exceed four or five hundred. ✓

“ The great and essential difference,” say the missionaries, “ between the mulberry silk-worms and the wild silk-worms, is, that the Author of nature has been pleased to give to the latter a spirit of freedom and independence absolutely invincible.” ✓

In the Observations on Natural History, by the emperor Kang-Hi, or Kaung-Shee, we find the following curious reflection—

“The Mahometans who are to the north-west of China, rear a different species of silk-worms to ours; they are half as big again: the silk which they spin is stronger and more durable; forty threads of that silk are sufficient to make a thread to work with; instead of which eighty of those of the province of Tse-Kiang, whence our finest silk comes, are necessary. How dare any one say that there is no silk out of China?”

The domestic silk-worm is but a variety of the wild species. The finest silks come from the province of Tche-Kiang, where a great number of mulberry-trees are grown. The branches of these trees are continually being cut, that young branches may push out the more promptly; for it is the leaves of the young branches which the worm prefers.

These mulberry-trees are planted in straight rows, well laid out, at ten or twelve feet apart.

The first warm weather hatching the insects' eggs, it frequently happens in China, as in the north of France, that the mulberry-trees have not then a sufficient quantity of leaves. They are supplied in our climate with lettuce-leaves. In China, the substitute is very ingenious; they give the young larvæ leaves, gathered the autumn preceding, which have been dried and reduced to powder.

The situation selected for the worms should be pleasant, and somewhat elevated, on a dry soil, and in the vicinage of a brook, lonely, and particularly free from noise, and from all noxious smells. It is said, that the barking of dogs and the crowing of cocks are sufficient to discompose, and even to destroy, silk-worms.

The windows of the rooms in which worms are kept, are covered with white and transparent paper. There are some periods at which light is necessary, and

others when darkness is preferable; for which reason moveable mats are placed behind the frames.

It is important that the worms hatched at one time should be kept together, that they may sleep, wake, eat, and work accordingly: when they are visited, those which are behind-hand are taken away. The worms are disposed on hurdles of rushes forming eight or ten stories, one above another: upon the hurdle is a mattress of chopped straw, on which a long sheet of paper is spread. In the early days, the young larvæ standing in need of a more delicate food, the leaves are cut small and very fine.

For the purpose of hatching the eggs, the sheets of paper on which the females have deposited them are suspended by strings. The room is warmed to the necessary degree of heat by a fire which neither throws out flame nor smoke. When the worms are ready to come forth,

the paper is spread on very fine mats; those sheets of paper are then turned down upon longer sheets, which are covered over with mulberry-leaves. The smell attracts the little worms, which feel hungry, and the more idle ones are assisted either with a feather, or by slightly tapping under the paper on which they lie.

The care of the establishment is, from this moment, confided to an intelligent woman called *Tsam-Mou*, that is, *Mother of the Worms*. This woman does not enter upon her office until she has well washed herself and put on clean clothes. She must not have eaten recently, nor have touched wild endive, the smell of which is considered very prejudicial to the young ones. This woman wears plain clothes, without linings, that she may be better able to judge of the degree of heat of the fire; for in these kinds of establishments the Chinese do not make use of a thermometer.

The leaves covered with dew, those which have been dried in the sun, or in much wind, or which have imbibed some unpleasant smell, are the most common cause of disordering the worms: it is best to gather the leaves two or three days before, and to spread them in a very nice and airy place.

The young ladies at our boarding-schools, who often amuse themselves with keeping silk-worms, have not unfrequently the pain to see nearly whole broods perish because they have not the best possible opportunities to procure leaves, and because they, in particular, adopt the pernicious habit of sprinkling them with water to keep them fresh. These damp leaves never fail to give the worms a jaundice, which almost always proves fatal to them.

The Chinese pretend that leaves, which have been kept some time in the bosom,

and which have imbibed the moisture of the body, are excellent for silk-worms.

When the worms begin to get old (their term of existence is only twenty to twenty-five days), their food is given them more sparingly, as a preventative against indigestion.

When they are about to begin making their cods, they must be taken off the mats, and put upon hurdles of a different description.

At the end of seven days they have completed their cods; a week after this, the worms quit their rich tombs, and make their appearance in the form of butterflies. The cods, intended for propagating stock, are placed on hurdles in a very airy situation—these are called graine-cods.

The butterflies break through the cods of themselves; they are left at liberty



on sheets of paper, and the females, twenty-four or thirty-six hours afterwards, deposit their eggs.

The butterfly, when shut up in the cod, is termed bean, nymphe, or chrysalis: this chrysalis has neither feet nor wings, but some little pulsation discovers it to inclose a living animal—in fact, the butterfly is contained in it in a kind of bag. The Chinese are very fond of the chrysalis as a dainty meat.

The graine-cods are not fit for reeling; they are, however, not lost, being made into a kind of ferret-silk, or silky stuff. As to the cods whence the silk is obtained, they are sold by the pound to wholesale dealers, who have the silk wound off.

The first operation is to kill the chrysalis contained in the cocoons, for fear they should be hatched, and injure the cocoons by breaking through them.

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## REELING SILK from the WORMS.

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This cruel, but unfortunately necessary operation, is performed by the steam of boiling water.

When the cocoons are about to be reeled, they are put into a caldron of boiling water, eight, ten, or twelve to a thread, more or less, according to the degree of strength intended to be given to the silk. Sometimes a fire is lighted underneath it to keep up the heat, and at others, as in the annexed Plate, the boiler is left to its own warmth. A woman, seated in front of the copper, stirs the cods about with a very small rush-broom. In France, a little birch-rod is used for the same purpose. The end of the thread of each of the cocoons adheres to the small strips of the rush: the reeler, by this means, lays hold on them, and, putting them all even, they pass through a ring at the top of the frame, over which they glide as over a pulley, to the reel. The same woman turns the reel by the motion of her feet on a pedal, similar to

what is used in the spinning-wheel. In the more extensive factories, the reel is turned by another woman or a child.

It often happens that the thread breaks, and the woman must then recover the end out of the boiler; to do which, she is necessitated to plunge her hands into the almost boiling water. She therefore has, at her sides, two jars, full of cold water, into which she immediately dips her fingers, to prevent the effects of the scald, and to remove the pain. Those who have witnessed these manufacturers in Provence or Piedmont, cannot refrain from surprise at the insensibility of the skin of these females, who shew no signs of pain at what they undergo: they certainly, on the other hand, can, none of them, lay much pretension to fine hands.

When the silk has been wound off, it undergoes nearly the same processes as in our European factories, and is made into different kinds of cloths: but the

Chinese put no gum into their raw silks, which naturally contain a gluten.

Silk is so common in China, and manual labour is so cheap, that it there seems inexhaustible. Not only the mandarins, but men of letters, and all persons in easy circumstances, as well male as female, wear silk, satin, or damask clothes: even the uniforms of the very soldiers, as we have already noticed, are made of this, elsewhere considered, so valuable material.

This abundance of silk does not prevent the importation of silk goods into China, when they are of rich and elegant workmanship. In the warehouses of Canton, the Chinese have no difficulty in rolling up the pieces which have been undone: they use, for that purpose, two long rods of polished steel: it is a very ingenious instrument, and is well worth adopting in the European warehouses.

A letter from Father Bourgeois to M. Bertin, dated 15th November 1777, mentions the extraordinary fact, that, in the district where silk-worms are bred to a great extent, horses do not thrive, but soon die.

Messieurs Ko and Yang, going through Lyons, on their way to Spain, and thence to China, their native country, by the minister's desire, visited the silk-works of that city. The following observations are extracted from their joint memoirs on this subject.

“ Of the different colours in France, the white, blue, yellow, and black, particularly need improvement. The latter colour, in France, burns the cloth, whereas that of China does not injure it, notwithstanding it is unchangeable. The blue and yellow of France cannot be exposed to the rain without injury; while those who have a knowledge in silks of the same colours, which come from China,

say that they bear washing without losing any of their brilliancy."

These same foreigners very much admired the gold and silver galloons manufactured at Lyons, and said, that the exportation, to their country, of gold, or rather of silver gilt thread, would be very advantageous.

"It would be introduced," they add, "into the gold stuffs, and the different gold embroideries. The Chinese practise no other embroidery in gold, than with slips of paper covered with leaf-gold; so that their embroidery can scarcely withstand a shower." (These threads, or slips of twisted paper, are exactly similar to what the Chinese formerly adopted in their binding.)

"The smooth velvet of Lyons, in the opinion of judges, who have resided in China, is not equal to ours, although it



is dearer in this country; but the gold cloths of Lyons are perfection itself."

✓ "We do not believe that the Chinese yet know how to mohair their smooth cloths, nor to make chintz, although the name seems to indicate that it was originally derived from the Chinese."

✓ "We have seen the gauze-work: that of China is far preferable, as well on account of its brilliancy, as of its fineness. We have different kinds of it: some are stiff, others soft; some are plain, others mixed; some also are fashioned as if made in the piece; and these are, unquestionably, far superior to all the gauzes we have seen in France."

✓ The Chinese make their tapestry, neither with silk nor wool, but camel's hair. In the opinion of Ko and Yang it scarcely deserves the name of tapestry. "They are only a medley, a thousand colours, put together without either taste or con-

nexion, and they are therefore merely used, by the Chinese themselves, as floor-carpets. Two or three suits of hangings of the Gobelin tapestries, in the emperor's palace, would perhaps give him more pleasure than all the magnificent thrones with which his court is ornamented. He would be surprised at the brilliancy of the colours and beauty of the design. The flowers and figures are preferred to every other representation; but the figures must be decent, the Chinese being extremely delicate on that point."

It was probably from this opinion which Ko and Yang dropped accidentally, that the minister thought proper to add to their consignments, some superb Gobelin tapestry, as a present to the Chinese emperor. ✓

They at first had great difficulty to extricate these valuable articles from the grasp of the custom-house officers and other government supervisors. The vice:

roy insisted on buying them, reason or none, or, in other terms, would appropriate them to his own use, at a moderate price, which he himself named. At length, after repeated conferences, the obstacles were removed; but a difficulty, if possible, of far greater magnitude, now presented itself, and which it is strange that it had not suggested itself sooner: how, by what title, and, above all, in whose name, could so rich a present be offered to the emperor?

A passage in a letter from Mr. Yang will shew what a difficult subject this was.

✓ "The tapèstries will probably arrive this year; but the perplexity now is, to know in whose name they can be presented to the emperor. There is no question that it cannot be in our own names, as it is an unheard-of presumption for private individuals to dare to offer a present to the monarch. Shall we resort to the inter-

vention of a mandarin of the country? He, beyond all doubt, would refuse to take charge of a commission, the least consequence of which would be the loss of his situation.

“ Shall they be presented in the king’s name? Without adverting to the danger there would be in the pieces being looked upon as a tribute, as is the custom with regard to the presents of other kings, we should think ourselves guilty of a species of crime, to use the king’s name without his permission in an affair of this importance. No other channel then remains, but that of the French missionaries, who will present these suits in such a way, that they may, in the sequel, be attributed either to the King, or the India Company; to themselves or to some other Frenchmen, according to the orders which may reach us from France.”

In fact, the last plan was adopted. A subsequent letter from the same Chinese

announces the sensation which the sight of these masterpieces produced at court.

✓ "They apprised their emperor that there had arrived for them at Canton, six pieces of tapestry; and that they besought his imperial majesty to order them for the decoration of his palace. The Tsong-Tou, by his master's orders, had them sent off immediately. The emperor, at the sight of such incomparable work, was so enchanted, that he exclaimed, Oh! what beauties! there are not their equals in my empire!"

✓ "This was like a festival-day at court: when the emperor is pleased, the nobles and other mandarins cannot contain themselves for joy."

✓ "The buildings of the palace not being of a size suitable for the reception of these tapestries, the emperor ordered some to be erected on purpose."

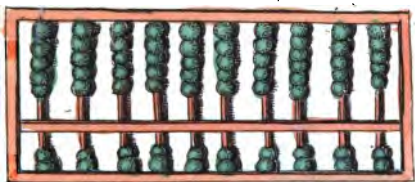
A singular, and hitherto little known fact as to the taste of the Orientalists for the embroidered works of European manufacture, is this : the cap of state which the Grand Lama of Tibet wears, is made at London, and cost four thousand piastres ; a new one is sent every year. The person who undertakes to furnish this, is Mr. Beale, an Englishman, settled at Macao, in the quality of Prussian resident, and who is at the head of a considerable commercial house there.

A CHINA-SELLER IN HIS SHOP—SOUAN-  
OR SWAN-PAN, AN INSTRUMENT FOR  
MAKING CALCULATIONS.

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THE itinerant china-men carry, at the end of their bamboo pole, an oblong box, not unlike the osier baskets in which we wash salad, and divided into several partitions. These boxes contain a number of cups, plates, saucers, and other ware equally brittle; the whole arranged with so much care, that, notwithstanding the expedition with which they are carried, and the spaces which are necessarily left in the partitions from the sale of articles, they never meet with an accident.

Having entered sufficiently into detail as to the manufactory of porcelain, in the Second Volume, I shall content myself



*A Chinese shopfront*

SWAN PAN.

CHINA SHOP.



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in this place, with introducing some observations of the Chinese Ko and Yang.

“It were to be wished,” say they,  
“1. That the Chinese workmen had the taste and variety of models, such as are seen at the manufactory of Sevres, especially those which represent human figures: for the Chinese have scarcely any but plain single figures. As to those of their own making, they are nearly all grotesque.”

“2. That the Chinese knew how to make models of moulds; it is simple and easy, so that a workman can make several of them in a day. It must be presumed that the Chinese are ignorant of this method of making models.”

“3. That the Chinese would give their porcelain more tolerable designs, &c. The material which the Chinese make use of for their porcelain is far better than that of French manufacture.

It is a pity, that, to the firmness of their material and brilliancy of their colours, they do not add an elegant taste; for what would there be more attractive and charming in the porcelain of France, were it stripped of its admirable display of taste, and of the superb enamel which decorates it, than mere fine earthen-ware?"

It must be observed that, of late years, the paste of porcelain, as well as that of earthen-ware, have experienced a very great degree of improvement.

I found, in the collection of M. Bertin, some drawings of china vases, of a form, than which nothing could be more tasteful, and which, imitated in the manufacture of Sevres, not only would find a profitable sale, but become very fashionable. What particularly struck me, in these vases, in addition to their beauty of shape and brilliancy of colour, was the blending of light and shade; in short, an ac-

curacy of perspective, and chiaro-obscuro, not expected to be found in the productions of the Chinese pencil.—In this kind of composition perspective is essentially necessary: how is a concave or convex surface to be otherwise distinguished from a flat one? If the vases are grooved, or divided into sides like those now before me, the middle grooves must necessarily be wider, and those of the sides progressively decrease, without which, the object would not appear globular.

Besides the art, which the Chinese possess, of painting on porcelain and glass, in colours which go through the fire, and consequently cannot be taken out, they excel in painting on a kind of stone, peculiar to their country, which is divided into very thin plates, notwithstanding they are of a large diameter; and of which they make folding screens. It sometimes occurs to me,

that this stone is an argillaceous schistus, which is divisible into pieces, like slates.

One of the first cares of Ko and Yang, on their return to their own country, was to send one of these curious screens to the minister who had protected them. The following is Yang's description of it, in his letter announcing that it was sent off:

“ A screen of stones, of a very singular fashion, in ten pieces of six inches high, by nine wide. Each piece is composed of five stone plates, two above, and two below, and a fifth, nearly two feet high, in the centre. These plates are of a stone which is like white marble in colour, painted entirely over by two of the most celebrated painters we could meet with at Canton; the subjects represented are human figures, views, flowers, birds, insects, &c.

“ The frames in which these plates, fifty in number, are fixed, are double : those which are next to the plates are made of a yellowish wood, called Nang-Mou. If this colour is not liked in France, they can be gilt : the outward frames, that is, those which surround the yellow frames, are of *lignum vitæ*, of a colour tending more to brown than black. No one has hitherto even thought of sending such a piece to France, and we presume to flatter ourselves that it will prove acceptable.”

The minister, delighted with such a present, did not omit to require some information respecting the stone of which these screens are made, and the mode of laying on the colours ; to which the following was the answer :

“ The propensity which the colours have to penetrate the stones, without losing their brilliancy, is not the effect of art ; it is the particular nature of these white

stones. Even in China the colour does not subside into all stones without liability to change, and that in no inconsiderable degree. I know of but two kinds of stones in China, which retain all the brightness of the colour applied on them; the first is procured from the mountains of a town near Chang-Tong; the second near a city named Tchao-King, two days journey from Canton, and this is the stone used in making these screens."

"From what I have heard, these white stones are in large solid masses;" (a proof that they are a schistus, and not marble:) "they are cut into plates by means of a saw, and are afterwards polished with a harder stone. This done, they are painted in colours; the painting being finished, a layer of wax is put upon it, the plates being previously warmed, and then they take off as much of the wax as they can with a wooden knife: there always remains some of the wax which cannot be got off; this it is

which prevents the colours from being rubbed out."

This process is nothing more than the painting in encaustic, known to the ancients, described by Pliny, and which was indispensable before the discovery of oil-painting: the latter method has prevailed, on account of the convenience of its mechanical processes, but it is subject to a very serious drawback; the colours become black, and there must be a period at which the masterpieces of a Raphael and a Rubens will be nothing more than smoky masses. It is true that painting in oil has the inestimable advantage of being much better adapted to the restoration, and especially to the repair, of the canvass of pictures.

The opulent Chinese have, in their apartments, china vases, in which they keep flowers, and rare plants, either in full vegetation or in water, when they have been cut off the stems. When the



season is unfavourable, they supply their place with artificial flowers. I do not know whether their artists, like ours, have the idea of imitating the treasures of Flora by cuttings from the cods of the silk-worms, but what they commonly use for this is the pith of a particular reed; at least such is the opinion of Ko, Yang, and the missionaries, though they have never succeeded in procuring any seeds of the plant. I should suppose, instead of the pith of spungy substance in which the seeds are contained, that the Chinese manufacturers employ the inner skin of the same plant, divided into very fine pieces, somewhat in the manner in which the Egyptians of old separated the rind of their papyrus, which is a species of rush or cyperus.

It does not appear, notwithstanding all his indefatigable efforts, that M. Bertin succeeded in procuring any satisfactory information respecting the rush used in artificial flower making. Later travellers,

both English and Dutch, are silent, not only on this point, but on that of the stone screens.

While M. Bertin was striving to enrich his country with the rarest productions which art and nature could afford from the Chinese empire, he wished, as a sort of compensation, to impart to that people new enjoyments or new objects of curiosity in return. He therefore sent to his two Chinese protégés whatever they required, himself even taking charge of their apparently most trivial commissions, such as buying them scissars, knives, pen-knives, spectacles, &c.

The articles with which it was his wish to do homage to the emperor of China, by the intervention of the French missionaries, were not always of a nature to be presented without scandal, or even without risk.

The emperor Kien-Long was so overjoyed at receiving two pair of achromatic spectacles, that he never went out without them. The consequence was, that the Chinese, pursuing their laudable custom of naturalizing all foreign names, gave these optical instruments the name of Souei-Kia, derived from Souei, which signifies, to follow, and Kia, imperial majesty; because they went with, or followed, the prince every where.

The missionaries, however, could not venture to offer his majesty a Sevres biscuit china statue of the emperor, nor medallion portraits of the same manufacture, nor an electrifying machine. Father Bourgeois assigns his reasons for withholding them, in a letter from which the following is an extract, and which it is material to give, as it displays in a yet stronger light, the peculiar genius of that nation.

“Your Greatness is particularly desirous of information on certain subjects from which you promised yourself much, and which appear to have been too much neglected. The delicacy was, perhaps, false which has hitherto prevented the disclosure of the whole truth.”

“1. The statue of the emperor, in white china, has never been presented to him, for three reasons ; firstly, because it is, in this country, prohibited to make a likeness of the emperor; secondly, because the statue bore not the least resemblance to the emperor; thirdly, because it is not dressed in the costume of the country—the cap especially, which is puffed up like a Turkish turban, would appear farcical.”

“The emperor of China, with a view to conciliate veneration, imitates the Divinity, *quæ posuit, in tenebris, latibulum suum*. If, in this country, it

were known, that, in Europe, portraits of kings were suspended before public-houses, exposed to dust, wind, and rain, and to the witticisms, and, perhaps, sarcasms of the populace, we should be held in derision."

" 2. No use has been made of the china medallions for nearly the same reasons. There is another reason likewise, of which it is not easy to feel the force in different countries. In China, a head, separated from the body, excites horror, inasmuch that, when any one is beheaded, his relations or friends instantly replace the head on the trunk. Besides, the medallions are really not unlike decapitations; it would even be said, that they could distinguish the place where the stroke of the sabre had been applied."

" 3. The electrical machine is not to be considered lost; but I much doubt whether it can be made use of here: as

no cause can be assigned for its effects, it is to be apprehended that the Chinese would attribute them to magic. This is scarcely conceivable in Europe, and yet nothing is more true. This is not the case with the *Industrious Writer*." (An automaton, the arms and fingers of which, moved by means of springs, traced any characters on paper.) "We have it in our power to shew the springs and wheels which give motion to the hand. Another reason, and which is equally strong with the former, is, that we can never be positively certain that the barrel will not burst. I saw a very fine one at Rheims, which had been long in use, and which burst during the operation, and took off both the electrifier's hands. If such a circumstance were to happen in the emperor's presence, every thing would be lost."

For the clear understanding of this last paragraph, we must bear in mind that the principal part of electrical

machines was then a glass globe, and not, as now, a glass plate. It was the particular accident to which Fâther Bourgeois alludes which gave rise to the great improvement in those machines. Besides the advantage of giving a glass plate large dimensions, and of which a globe would not be susceptible, and to augment still further the intensity of its effects by covering it with a taffeta cover, as was done by the learned Van-Marum, in the immense machine of the Haerlem academy, the plate of an equal superficies is much less liable than the globe to break. Even in case the same accident should happen, the effects of it would be far less fatal: the plates are turned more slowly; whereas, by means of multiplying wheels, a celerity of motion was communicated to the globes, frequently ten-fold beyond that given by the handle. The last paragraph of Father Bourgeois' letter seems to shew very clearly that the missionaries were political emissaries.

To return to my text: on the left-hand of the shop-keeper, on his counter, is a small instrument called the Swan-Pan, or calculating machine, which is given on a larger scale in the same plate. As the description of this instrument will also require rather extended detail, it is made the subject of the following chapter.



SWAN-PAN, OR INSTRUMENT OF  
CALCULATION.

ALTHOUGH the arithmetic of the Chinese is founded, like our own, on that which we have borrowed from the Arabs, on the decimal system, they cannot, with their figures, perform the *four rules* in the same way we do with the Arabic figures. Their numerals, of which I shall speak directly, have much resemblance to those of the Romans. They make all their calculations, even the most complicated, with a machine which differs very little from the Roman *abacus*. Their neighbours the Siamese do not adopt these threaded balls; they calculate with the pen.

The reckoning-machine, which the Chinese call *Swan-* or *Souan-Pan*, consists in a

piece of wood or copper in the form of a parallelogram, and divided lengthwise into two unequal parts, by a separation of the same shape as the outside frame. Across the two compartments are let in ten slips of copper, containing, in the larger division, each, five bone or ivory balls, and in the smaller only two balls.

The two balls in the narrow case represent each five units, and those in the larger only a single unit.

In making calculations they take one line for units—the first to the right or left, according to the custom of the accountant, but most commonly that to the right: the other lines represent numbers in a ten-fold progression; the fractions are decimal, and they are calculated like whole numbers.

Thus, with the aid of the *Souan-pan*, it is possible to effect the most abstruse computations: the Chinese make use of

them with a surprising degree of readiness and quickness. Duhalde mentions, that the emperor, working in the missionaries' presence, the verification of an astronomical semicircle, formerly constructed by Father Verbiest, employed the *Souan-pan* with so much facility, that Father Thomas was longer in working the same calculation by means of the Arabic figures.

I have already mentioned that the Chinese have particular characters for numbers. These figures are not, at least in form, without some analogy to the Roman figures, except that the unit is expressed by an horizontal mark, and the number ten, instead of being a St. Andrew's cross, like our X, is figured by a straight cross similar to the sign plus + in algebra.

The numbers 2 and 3, are expressed by two and three horizontal lines, one above another; 4, 5, 6, 7, 8, are designated by characters which seem arbitrary.

The number nine is indicated in the arithmetic of the Romans, by the sign 10, preceded by a stroke, pointing out the suppression of an unit. The numbers 11, 12, 13, &c. are rendered by the figure 10 with the numbers 1, 2, 3, &c. underneath it.

A similar system is pursued in the designation of twenties, thirties, &c.

The learned Doctor Hager, who has promised us a complete dictionary of the Chinese language, has been struck by these similarities between the Roman and the Chinese numerals. He asserts that the analogy goes still further; that the three principal Roman figures, I, V, and X, were designated in the Chinese language by the same sounds as express them in the Roman alphabet.

It is clear that, in the Chinese language, one and five are pronounced *e* and *u*; these words render the sounds of the

vowels I, and U, or V, such as the ancient Romans pronounced them; but Mr. Barrow reproves Doctor Hager as being less fortunate in his assertion, that for ten, the Chinese make use of the word *xi*, which would nearly represent the sound of the *x*. In point of fact, Doctor Hager has followed the Portuguese orthography; the name of the number ten is in the Chinese pronounced *cha* or *che*.

Admitting, with Mr. Barrow, that this analogy, even though it existed beyond dispute, is purely accidental, I cannot withhold one observation, that we are not precisely certain how the ancient Romans pronounced the letter X; and if we take into consideration, that there is no such letter in the language of the modern Romans, as they say in Italian, Alessandro and Serse, not Alexander and Xerxes, the error of Doctor Hager may not be so material as the in-

teresting English author would have us imagine.

I have further reasons for believing that the ancient Romans pronounced the letter X like our S, more or less dwelt upon. There are yet in being some documents in the *Tyronian Notes*, or shorthand, which Tyro adopted for transmitting to posterity the eloquent discourses of Cicero; and which St. Cyprian afterwards employed in collecting the Acts of the Martyrs. The Benedictines, Carpentier and Mabillon, have collected and explained several interesting pieces of the middle age, written in Tyronian notes. I have attentively considered these characters, and have remarked that the words *judex* and *vides* are written by one and the same sign—an evident proof, that there was, at that time, much less difference in the pronunciation than there would be from the lips of a modern; they said *ioudes*, and *ouides*: these two words, so nearly similar

in pronunciation, might without inconvenience have a common sign for shorthand writing, in the elementary signs of which great economy is desirable.

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*A. Freschi sculpsit*

## GREAT STEELYARD.

*Pub'd May 1842, by L. Stockdale, at Pall Mall*

### GREAT WEIGHING-MACHINE, OR STEELYARD.

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THE shop, represented in this Plate, is that of a man whose profession it is to weigh articles which are brought to him for that purpose. The Chinese make use of two kinds of weighing-machines; one, which has two scales; the other, which is the more generally used, resembling the Roman balance. This last is what is termed in mechanics a lever of the first power. The bearing point is not in the middle, but very near one of the extremities, whereto the resistance or weight of the burthen is applied. The power of weight is moveable on the great arm of the lever, which is marked off in a certain number of divisions.

It is said, that the Chinese scales are not correct, and that they differ from one

to five Chinese ounces in a hundred weight. That of the Tribunal of Finance, which is termed *Kouan-Ty*, does not vary, and serves as a model for the others, as the Toise du Châtelet of Paris formerly served as a standard for linear measurements. (On the middle of the Pont-Neuf there still is a standard of the ancient Toise du Châtelet: it is a bar of iron sealed in the stone of the pavement.)

The Chinese pound, according to M. de Guignes, is adequate to six hectograms two thousand and ninety-two milligrams. Thus it is equal to something more than one of our pounds. The pound, or *kin*, is divided into sixteen ounces, or *leang*; the *leang* into ten *tsien*; and the *tsien* into ten *fen*. The terms used at Canton are *kin*, *tael mas*, and *condorin*.

## CHINESE JUNK.



THE Chinese scarcely ever navigating out of the seas which lave the coasts of their empire, the consequence is, that their marine has been little progressive. They have, notwithstanding, some ships which make long voyages, that is to say, which go to Manilla, Banca, and Batavia: but, for these voyages, they take advantage of the regular winds which blow alternately during six months of the year, from the north-east or south-west. These winds are called monsoons or trade-winds.

It is rather the practical difficulty of navigation which makes the Chinese incompetent to venture longer expeditions, than the impossibility of knowing whereabouts they are, when in the main ocean, out of sight of their coasts. I have al-

ready observed that they possessed a knowledge of the compass or magnetic needle from time immemorial. Their compass is much smaller than that used on board of our ships. The needle is seldom more than nine or ten lines long.

A proof, says M. de Guignes, that the Chinese did not formerly venture out into the open sea, is, that they had no knowledge of the island of Formosa, till 1431, nor of the islands of Pong-Hou, till 1564.

The immense number of the rivers and canals by which their own country is intersected, has made them rather more attentive to their inland navigation.

The junks (a term of European origin) destined for foreign service, are from one hundred to six hundred tons burthen. They are flat-bottomed, with a high and bulky poop. The prow is, as it were, mutilated, and not unfrequently repre-

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*A. Forseli sculptor*

## JUNK.

*Pub. 423 May 1822, by H. Storchdale, 41 Pall Mall*

sents a dragon with its mouth open. Mr. Barrow compares the figure of the Chinese junks to the growth of the moon at its fourth day.

On our European ships the poop or hinder part of the vessel is the post of honour. There it is that the captain's cabin, and those of the officers and passengers of distinction, are always made. Not so in China, where the prow is the honourable part. The reason of this is, that the junks, sailing more often before the wind, than with a side-wind, the cargo is stowed in a heap at the poop.

The large junks have three masts: that in the middle is the tallest, like the main-mast of our ships. An oblique mast, corresponding to our bowsprit, and carrying, to the water's edge, the sail which we term the spritsail, is sometimes added.



The masts are not divided into various pieces, joined by scuttles, that is to say, they have no topmast ; they only adapt a topmast to them when the weather is particularly fine. The sails are not made of canvass, but of very fine mats ; which are strengthened throughout their whole width by bamboos, placed at the distance of a foot one from another. They fold up by sheets, like fans.

In European ships, the lanyards are laid hold of by the top of the sail ; in Chinese ships by the lower part.

The bottom or hold of the Chinese junk is of a kind of construction peculiar to itself. It is divided into a dozen compartments. The boards which form these partitions are two inches thick ; the joints are caulked with a cement of lime and oil, mixed with scrapings of bamboo. (In England, hair is generally mixed with the plaster, to give it more tenacity.)

Doctor Dinwooddie, who accompanied Lord Macartney, found that this composition was not only impenetrable to water, but also fire-proof. There is no doubt, Sir George Staunton says, that it is preferable to pitch and tar, rosin and fat, which are never used in the construction of Chinese ships, either for the wood or the cordage. I have before said that the cables were of bamboo, rotted in urine.

The anchors are made of *lignum vitæ*; it is so hard, that the ploughshares are also made of it.

The divisions of the hold are a most decided improvement: if water find its way into one of the compartments, the others remain untouched, and the merchandise in them is not damaged. We must, however, confess that it makes a considerable diminution of stowage-room. Sir George Staunton and M. de Guignes both conceive, that this not

being an object in ships of war, the Chinese method might be adopted with great advantage in the construction of that description of vessels.

One very serious objection to it now occurs to my mind: if a leak is sprung in the hold of an European ship, it is easy to discover and gain upon it by setting the pumps to work: but if there were various compartments, there ought to be as many pumps as particular divisions, and even then accidents would be more difficult of discovery.

Chinese ships of war are nearly similar in form to the junks destined for long voyages: they are armed with small guns and carbines.

The galleys which go by oars are armed with swivels.

Not only have all the ships of war the exclusive right of carrying guns or car-

bines, but the crews of merchant-vessels are not allowed to carry any arms: if they are attacked by robbers, they can only defend themselves with stones, or with long bamboos pointed at the end.

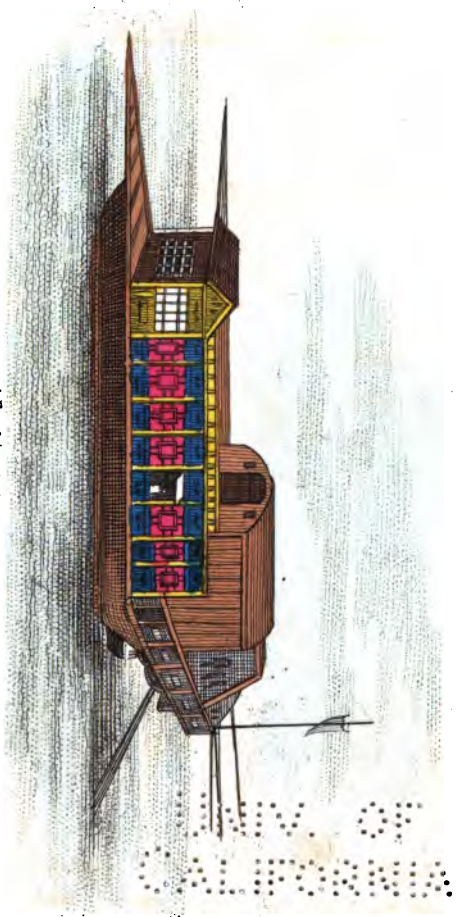
## PLEASURE-JUNK—CHINESE BRIDGES.

THE pleasure-boats of the Chinese are prettily shaped ; they consist of a large cabin and of lockers tastefully ornamented. The windows are made, either of lattice-work or shells, which in China supply the place of glass. At the inside of the edge of the boat is a space of a foot and a half wide for the use of the mariners ; a mode of construction indicated by the very nature of things, and which is the same generally in the travelling boats of Europe.

A mast and sail are sometimes adapted to it, as on some of our canals ; but these boats are more frequently either rowed or dragged by ropes.

THE ASSOCIATED PRESS.

*A. Frost's sketch*



TO THE  
LIBRARY

The Chinese boatmen make use of a strong large oar placed behind, to which they sometimes add two at the sides. Their motion is not like that of the oars of our boats, but like the movement of a fish's tail; a similar kind of oar is now in common use on the Seine in France. The mariners who conduct the trains of floating timber, and the boats denominated *marnois*, make use of oars, placed astern, and not transversely like those of galleys or row-boats. This method does not appear to be of very ancient standing, and was not known even at the time when Ko and Yang were at Paris. The subjoined extract on the subject, is from Yang's letter, dated Cadiz (where they were waiting a favourable wind to sail for China), 21 February 1765.

“ In regard to navigation, the Chinese have more to learn than to communicate; however, as their mode of navigating is very simple, perhaps advantageous hints may be adopted from some parts of it. The



Chinese, for example, instead of using oars to row their boats, attach to the sterns of them a larger oar, which is kept in constant motion. This method of movement impels the boat much more swiftly forward than if it were rowed in the common way. We once saw at L'Orient, two boats which were conducted on the Chinese plan. This seems to have been recently adopted from the Chinese, as M. Poivre did us the honour to tell us at Lyons, that he had never seen that mode of navigation in France ; adding, 'but it is best calculated for expedition'."

When the government overseers superintend the route of boats, intended either for transporting the taxes which are paid in kind, or for the conveyance of distinguished persons, such as foreign ambassadors, they put in requisition the country people, to drag the boats with a rope. At the approach of these convoys all the men of the neighbouring villages

frequently leave their dwellings, and then the unfortunate towers are not relieved during the night, for the purpose of taking by surprise, those who are to fill their places. A man with a pan-tsee, or bamboo whip, keeps them all to their work, and flogs those who do not stick properly to their duty.

Although the masts of the junks are not of a construction so as to be lowered when passing under bridges; the buttments of the bridges are almost level with the ground. The consequence is, that the arch or arches are very high, and they rise by rather a steep ascent. This is one of the circumstances which make land travelling very tedious and difficult.

The bridges, although so numerous in China, appear to have been made only for foot-passengers: some of them, however, are very curious, particularly that

near *Sou-Chou-Fou*, consisting of ninety-one arches.

Near Chan-Tcheou-Fou is a bridge of blackish stone: it has no arches, but is supported by three hundred pillars or piles of stone, which terminate in sharp angles, for the purpose of breaking the rapidity and violence of the current. This bridge is said to have been built at the private expense of an old governor of the city, whom it cost fourteen hundred thousand ducats.

The famous iron bridge on the road to *Yun-Nan*, in the *Koei-Tcheou*, is the work of a Chinese general, who constructed it in the year 65 of the Christian era; it is thrown over a torrent, between two mountains.

At each end a large gate has been built, between two stone pillars, six or seven feet wide, by seventeen or eighteen high: between these pillars are suspend-

ed four chains by large rings, united transversely by smaller chains. Above these moveable, but solidly-fixed supporters, is a flooring of beams, or fir-planks, which are renewed as often as necessity requires it.

Other iron bridges have been built in imitation of this: but they are not so large, and are supposed to be less durable.

I have already adverted to the rafts on which whole families reside. The children are fastened on to them with long strings, that they may not be debarred taking exercise, and still be safe from falling into the water. Their mothers sometimes fasten calabashes round the necks of those who are not tied, that, in case they should unfortunately chance to slip into the river, they may float, and thereby be saved.

A VENDER OF SUGAR-HARES FOR THE  
FEAST OF THE FOURTH MOON.

---

THE inscription attached to the original drawing of the above subject, is faithfully copied here. According to Father Magaillans, the feast, herein spoken of, should not take place at the fourth but at the eighth moon.

“ From sunset and the getting up of the moon, till midnight, it is customary for every one to walk with their friends and relations in the streets, public places, gardens, and on the terraces of the houses, to wait the apparition of a pretended hare which shows itself, on that night, in the moon. The preceding days they send to each other, pies and sugared cakes, which they call Yue-pina, which signifies moon-cakes. They are of a cir-

gular form, and the largest about two hands' breadths in diameter. They represent a full moon, with, in the middle, a hare made of paste, nuts, almonds, kernels, sugar, and other ingredients. They eat them by moonlight: the rich, to the sound of instruments of the better kind; the poor, to that of drums, kettle-drums, and gongs, which are played without much art.

The emperors of old had a palace built, purposely for the celebration of this feast (it was called *Cim-Yu-Tiem*, the Palace of perfect Purity): it was on a height, named *Fout-Chan*, or the Hare-mountain.

"Our Europeans," says Father Magaillans, "will perhaps ridicule the notions which the Chinese have, that the spots of the moon represent a hare; but besides that the common people in our own country have opinions which are no less absurd, I must inform them that

the Chinese laugh, in turn, when they see, by our books, that we draw the sun and moon with human faces."

I have elsewhere noticed, that, in the eyes of the Chinese, the spots in the moon represent a hare, pounding rice in a mortar, and that it is about the fifteenth day of the moon's age, when it is entering into its last quarter, that they fancy they see the figure of the hare most distinctly.

According to Father Magaillans, the moon-cakes are intended as a representation of the full-moon; but, by the drawing prefixed to this, they are flat cakes, which have the figure of a hare, sitting upon its hind legs, or squatting down, and eating something round; the middle cake is ornamented with peacock's feathers, and is surmounted by a figure of the moon, in which we see a hare pounding rice: it is almost needless to say that this is dearer than the others. The



**SUGAR-HARES.**

**WINE-T-RUCK.**



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vender calls his customers by shaking a kind of child's coral. (May not this custom also be the record of some great and perhaps sacred occurrence? We still retain the use of our twelfth-cakes, pan-cakes and fritters, and hot-cross-buns.)

Although the Chinese philosophers have some correct ideas on astronomy, as they understand the calculation of eclipses, they encourage the old superstitions respecting them. The people firmly believe that the sun and moon, when in eclipse, are threatened with being swallowed up by an enormous dragon; and that the dark part of those luminaries is already within the gaping jaws of the ideal monster.

As eclipses can only occur in the nodes of the ecliptic, that is to say, in the intersecting points of that circle with the moon's orbit, they always occur in the head or tail of the celestial constellation

termed the Dragon: the people, misunderstanding what their astronomers have said on the subject, have conceived it to refer to a real dragon, a fabulous monster indeed, but the existence of which they look upon as indisputable.

When an eclipse is expected to be visible, bills are posted in the streets of Peking, and of the other towns, shewing its dimensions, according to astronomical calculation. This, however, does not suffice to diminish the terror of the people, who make a great noise with gongs, kettle-drums, and even kettles, until the dragon, which they think to frighten away by this nonsense, has at length let go his hold.

Eclipses, particularly those of the sun, are regarded in China as a bad omen: it is still worse, if this phenomenon happens on new year's day: that which occurred on the first day of the sixty-first year of the reign of *Kien-Long*, spread a general

consternation, because he had announced this day as the epoch of his abdication in favour of one of his sons. That able politician sought to dissipate these impressions by a very judicious proclamation.

“Although eclipses,” said he, “have no influence, either on the happiness or on the misery of mankind, it is a custom wisely established, to look into ourselves, when they do happen; to examine ourselves previously, and to take effectual measures for the correction of whatever faults we find in our conduct. It is what I have always hitherto accustomed myself to do, on these occasions.”

He moreover took advantage of the eclipse as a pretext for withdrawing his intended abdication.

## A TRUCK FOR CARRYING WINE, IN THE SOUTHERN PROVINCES.

---

**T**HE Chinese wine is a kind of beer: it is made or brewed in the northern provinces, with Hoang-Mi, a large species of millet; in the southern provinces they make use of Kiang-Mi, a smaller kind of rice than that used for food.

They begin by doing the grain in great boilers, or sometimes in a *balneum-Mariæ*; it is taken out of the boiler, and, when it is cooled, a kind of yeast, made of wheat, is thrown upon it; it is kneaded, and put into large varnished earthen jars.

The fermentation continues for five or six days, and it is then wine. As it is somewhat mixed with lees, it is strained through a large cloth bag, and is kept

in capacious jars, like those represented in the Plate annexed to the foregoing chapter. This wine must be kept in a cool place, without which it would become sour.

The Chinese almost always take their wine hot; before they drink it they put it into a small pewter jug which they dip into boiling water. The colour of this liquid inclines to yellow; whence it derives its generic name, Hoang-Tsieou; Hoang signifying yellow; and Tsieou, fermented liquor: but it has different names, and different degrees of goodness, according to the places where it is made.

The best is that of the province of Kian-Nan; it is called Hoei-Kuen, from the name of a fountain of particularly fine water, which is used in making it. The value of the bottle is about seven or eight pence, English.

The Chao-Tsing-Tsieou, so called from a town in the province of Tse-Kiang, when it is manufactured is said to be rather tart; but it flies into the head, and is much in request. When the emperor reprimands his courtiers for living too well, he tells them they drink Chao-Tsing-Tsieou.

“ The Chinese wine,” says the author of a manuscript, now in my hand, “ does not gladden the heart of man, like that of the grape; few Europeans like it. We wished to make wine from grapes, in our own houses; for several years the missionaries, new-comers, tried to make it, according to the manner of their own country. The Italians and Portuguese succeeded, however, no better than the French. They could never extract from the grapes of this country, any thing but a weak colourless wine, sharp, and easily turned: and no wonder; for, at the time when the grape should ripen, they regularly have five or six weeks’

rain, and, as if that were not sufficient, those who cultivate the vines carefully cut little trenches to them, to make the size of the grapes larger, and the profit consequently greater."

"They then resolved to boil the new wine until two thirds of it had evaporated. We read in the Journal de Paris, of a man of rank having informed the public, that some grapes remaining on his vines which did not ripen, he thought that, by the addition of the necessary quantity of sugar, he might turn it to advantage, and that, in consequence, he put a certain portion of sugar into his wine. M. Raux was induced to make the experiment, and it succeeded completely. We acknowledge our obligations to the gentleman who gave publicity to this secret, and to the journalists who gave it a place in their papers."

Duhalde speaks, on the authority of the ancient missionaries, of a singular



kind of wine, which is made in the province of Chen-Si, and which is named Cao-Yang-Tsieou, or Lamb-wine. It is not very clear how lamb's flesh can be employed in making wine.

Vineyards were formerly more plentiful in China than they are in the present day. The vine appears to have been known there under the Han dynasty, 125 years before Christ. Wine was made from the grape by a method very nearly approaching that of the Greeks and Romans. The vines were rooted out by virtue of a public edict, because they succeeded too well, and detracted from the cultivation of bread-corn. Vines have, however, been re-planted in some provinces. The humidity of the climate is a little adverse to this production. Although Peking is in a latitude as much to the south as Madrid and Naples, the vine must be buried during the winter, and be put into training in summer.

I cannot give a stronger proof of what has been asserted before, that the Chinese wine is repugnant to European palates, than by quoting a passage from one of Yang's letters, written from Canton to M. Bertin's secretary.

"I conclude this letter by entreating you to tell M. Bertin, that, being accustomed to drink the French wine, we now find the loss of it; thirty bottles would last us both for the whole year."

By a marginal memorandum, we find, that their generous patron ordered some wine to be sent to them from Xeres.

There is a great consumption of dried grapes in China. They come from the Ha-Mi country, and their seed is of considerable bulk. I have a very curious and learned work on the culture of the grape in China, by Father Cibot; it is unfortunately too long for publication.

The missionary therein expresses himself, according to custom, a warm admirer of the Chinese and of their country. It was he who drew up the *Mémoires sur les Chinois*, mentioned in the Preface. Apprehensive, at first, of making public, under his own name, the bold opinions which he therein suggested, he had availed himself of the name of Ko, one of M. Bertin's protégés. The minister to whom he transmitted his *Mémoires*, in recommending him secrecy, wrote this memorandum on the missionary's letter—

“He must be thanked for his communication, and be careful to keep the secret of the afflicted recluse.”

The minister in fact communicated those *Mémoires* to M. de Guignes, the elder, as the work of a Chinese, versed in our history and brought up amongst us. M. de Guignes was very much astonished to see a Chinese controvert-ing all which had been written by the

literati of Europe. He composed a long answer, which he communicated to the Academy. He sent his observations to M. Bertin, saying in his letter, "I have read over and over again this dissertation of the Chinese. It contains some good things, but it contains also many which are bold and unfounded. It has sometimes put us out of humour at the Academy, on account of the dictatorial tone which pervades it. I am employed in comparing it with a work of Father Amyot on the same subject. Father Amyot attacks me more directly, but he is more infatuated with the antiquities of China than this Chinese," &c.

## LAMPS AND CANDLES.

*A Lamp on a Stand in the form of a Chair.  
Candles.*

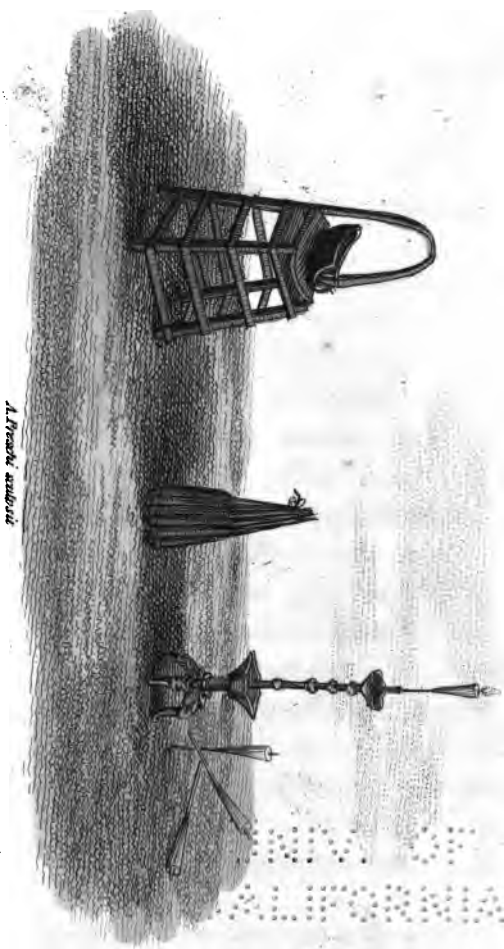
*Candlestick, with a Candle lighted.*

*Wax Candles.*



THE Chinese lamps are, as may be seen by the Print, clumsily made; they are manufactured of clay or metal, and are mounted on a stand shaped like a chair. The oil burnt in them is generally extracted from the Tong-Tchou almonds, which are very much like our walnuts. They use the same oil for painting and varnish. A kind of petroleum, or rock-oil, is also made use of for lamps.

The tallow of which the Chinese make their candles, is not derived from the animal kingdom, but from the fruit of a particular tree, which has the apparent



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property of exuding this substance, in the same manner as ruminating animals in their cellular contexture.

The tallow-tree, *Croton Sebiferum*, which prospers only in hot climates, comes from the provinces of Kieng-Si, Kiang-Nan, and Tche-Kiang. It resembles the cherry-tree, although it is of the *Euphorbia* family. It bears small flowers; some white, others yellow, the male and female being separate. The fruit grows in bunches at the extremity of the boughs; it is contained in a ligneous brown and triangular pod, with three compartments: each division contains three white seeds of the size of a small round lozenge, covered with a slight coat of tallow. The Chinese name of the tree is Oukieou-Mou.

After having boiled the fruit, the fat, which floats on the surface of the water, is skimmed off, and with this fat the



candles are made, adding thereto some linseed oil.

The wick is formed of various substances, filaments of the bamboo, surrounded with a small thread of rush, of mugwort, of a kind of thistle, or of a slip of asbestos, an aluminous substance which is incombustible.

For the inferior candles, the wick is more commonly made of bamboo; it is lighted at one end, the other is stuck into a large piece of wood which serves for a candlestick. Sir George Staunton remarks, that the economical disposition of the Chinese has discovered that this method gave them an advantage which the poorer classes only possess in Europe, from the use of what they term a save-all. This contrivance is said to save a tenth in the consumption of candles.

The candles made of tallow only are liable to run; this is remedied by the external application of a light coat of wax: they are painted green and blue, but more commonly red. Their candles are three or four inches long, and in the shape of a reversed cone; they make a great deal of smoke, and a far from pleasant smell.

Wax candles are manufactured, either from bees'-wax, or from a vegetable wax, produced by other insects, and gathered from the leaves of a kind of privet.

The Chinese bleach the bees'-wax by steeping it for a hundred days in eau d'orange, or by washing it repeatedly in water from the little river Yang.

The wax collected from trees is whiter and firmer than bees'-wax.

Father Cibot says, that the yellow wax of China possesses a singular property, which, if true, is curious indeed. He

says, that " a few ounces of a paste made from yellow wax and dry jujubus, well kneaded and boiled together, will subsist a man several days, and prevent him dying of hunger. It will readily be admitted, that yellow wax, being extracted from vegetables, and having contracted no bad quality in its passage through the bodies of the bees, may be very nourishing, at least in certain countries."

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THE CHAIN.

SHOTMARKS.

## CHINESE SHOE-MAKER.



THE drawing of this artisan was taken at Canton. He works for Europeans as well as for his own countrymen. The Chinese shoes have very strong soles, turned up at the toe; the upper part is generally of cloth, and covers the whole foot to the bottom of the leg. Some explanations have already been given on this subject, and to these the reader is referred.

**A MAN CONDEMNED TO THE CHAIN.****(SEE THE PRECEDING PLATE.)**

**T**HIS kind of captivity is extremely severe. The criminal wears round his neck a chain attached to a large bamboo pole, which is fastened by another chain to a fixed point. The culprit can go in a circle round it; he can even sit and lie down, but he is always kept at the same distance from the centre. When he stands up, and walks about, he is obliged to sustain the bamboo roller with his hands, to prevent his neck being lacerated or dislocated by the friction of the chain.

This is the general method of confining the culprits who are condemned to tow boats, at times when they are unemployed.

Justice is gratuitous in China; the magistrates who administer it are paid by government. They are prohibited from receiving the visits of the parties, and still more their presents. When they sit in their court, named Ya-Men, they must sit fasting, or, at least, have drunk no wine. The parties are either heard in person, or submit their cases in writing; they cannot plead by the medium of counsellors or lawyers.



## PUNISHMENT OF A FALSE INTERPRETER.



**T**HIS engraving represents a species of torture which is very common in China—it is a chastisement ordinarily inflicted on the interpreters of Canton when they are convicted of a wilful mistatement in the duties of their office.

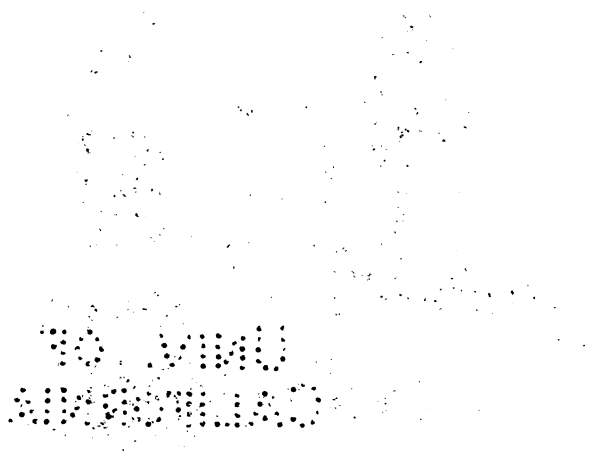
The offender is placed on his knees between two executioners, who hold his arms: over his legs is laid a long bamboo, which the two men tread upon with their feet. He suffers more or less pain, according as the executioners approach to or recede from his person.

The punishments of the Chinese of old, were a black mark on the forehead, the amputation of certain parts of the



*A French subject*

# **PUNISHMENT OF A FALSE INTERPRETER.**



body, such as the end of the nose, foot, the tendon of the leg, and lastly, death.

The sentence of towing boats is for the distance of 200 or 300 leagues, according to the offence.

## WHIPPING — THE BASTINADO.



THE bastinado and the whip are punishments which are very common in China. The mandarins have the power of inflicting them on those whom they have found committing any crime. This is considered *pâternal* correction, and is not thought in the least dishonourable.

One of the mandarin's servants sits astraddle over the shoulders of the offender, who is laid down with his belly to the ground. Another keeps his legs still with his whip, and a third gives him sharply over his thighs, with a long whip or slit bamboo, called pan-tsee, the number of strokes he is sentenced to receive.



**THE BASTINADO.**

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When the judge has condemned any one to the bastinado, the sentence is executed in his presence. He has, on a table, a case full of small sticks, six inches long, and one inch wide. As often as he throws one of them on to the table, so many times five strokes does the culprit receive.

The number of strokes is never less than five; it is sometimes fifty; in this case the consequence cannot be mortal. We are told that there are people who, for a round sum of money, undergo the punishment for others. These generally have an understanding with the whippers, with whom they share part of the reward: in this case they strike on one side, and scarcely ever touch the culprit.



PUNISHMENT OF THE TCHA, OR  
CANGUE.

---

**T**HE Eastern nations expose criminals in a kind of collar or pillory, which consists in fastening their neck into a large wooden table, with a hole in the middle; and the two halves of which are joined by pieces of wood or iron pins. On this board is written the name and business of the culprit, his crime, and the term of his punishment, which is often of long duration.

The two halves are sealed on two bands of cloth or paper, with the mandarin's seals, so that the offender cannot disengage himself without its being known.

The sufferer, in fact, is frequently at liberty to go where he chooses, dragging with him his cangue, which commonly weighs seventy-four, and sometimes two hundred pounds. He cannot see his feet nor carry his hands to his mouth, and he must perish from hunger, if his friends, or some compassionate persons, did not go to his assistance: to rest himself, he sets one of the angles of the cangue against the ground, or rests the extremities of it on the sticks of a kind of chair.

The term of his restraint at an end, the sufferer appears before the magistrate, who examines the state of the seals, has the cangue taken off, and sends the culprit away with a slight flogging.

In Persia, to the confinement of the neck and head is added that of one hand; but this cangue, of which the country name is Paleuk, is lighter and of a different shape. Mr. Alexander, draughtsman to Lord Macartney's embassy, has not given

a faithful copy of the Chinese cangue ; he has represented one of the hands of the criminal confined in the instrument of punishment.

They have three methods of inflicting capital punishment in China : one is by strangulation ; and that is considered, if not the mildest, the least dishonourable. Beheading is reputed infamous, and is only inflicted for the highest crimes. The Chinese consider it the consummation of disgrace to be thus mutilated.

Agreeably to this prejudice, they have still greater horror of another punishment, that of being cut into ten thousand pieces, or rather into an indefinite number. This punishment is carried into effect by strokes of the sabre, and the sufferer is hacked to pieces in the twinkling of an eye.

The word Ouan or Van, which signifies ten thousand, is most commonly taken

in a hyperbolical sense ; it is synonymous with a great number. When they mean to say exactly ten thousand, they have recourse to a method of circumlocution, which is one and nine thousand nine hundred and ninety-nine.

Criminals, condemned to die, are not executed immediately after sentence is passed : they are sent to Pekin, together with the particulars of their trial. In the autumn of every year, the mandarins composing the Board of Crimes, assemble to revise all the condemnations to death which have occurred within the year. Their opinion, with their reasons for it, is laid before the ministers. All the prisoners, laden with chains, are then put into different dung-carts, and carried to the emperor's palace ; they are separately examined by the magistrates, who, according to the exigency of the case, confirm or annul the sentence, or grant a commutation of the punishment. All the criminals who have been condemned

in the course of the year are executed on the same day.

Their number rarely exceeds two hundred, notwithstanding the immense extent of the empire, and the vigilance and severity of the magistrates. It is true, that they only punish with death crimes against the safety of the state and the person of the emperor; and homicide, without distinction between premeditated assassination and involuntary murder. The thief who has been taken with offensive weapons upon him, is also punished capitally, because, in that case, his intention to assassinate is presumed. The moderation of the penal laws, says Sir George Staunton, proves that crimes are rare in China. Such is actually the fact, except in times of famine, when the rigour of punishment can scarcely restrain the commission of them.

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*A. Pouché sculpit*

**TARTAR SOLDIERS.**

A TARTAR SOLDIER ARMED WITH A  
FIRELOCK.

(SEE THE PRECEDING PLATE.)

---

THIS musket being of moderate calibre, does not require to be rested on an iron fork. Matches for the Chinese guns are commonly made of a kind of mugwort.

We need not go over the same ground as to what we have already said relative to the Chinese and Tartar soldiery; but only add a few words on some singular orders of battle which the Chinese adopt in their armies.

The emperor Hoang-Ti divided his army into six corps, called Heaven, Earth, the Clouds, the Winds, Balance of Heaven, and Pivot of Earth.

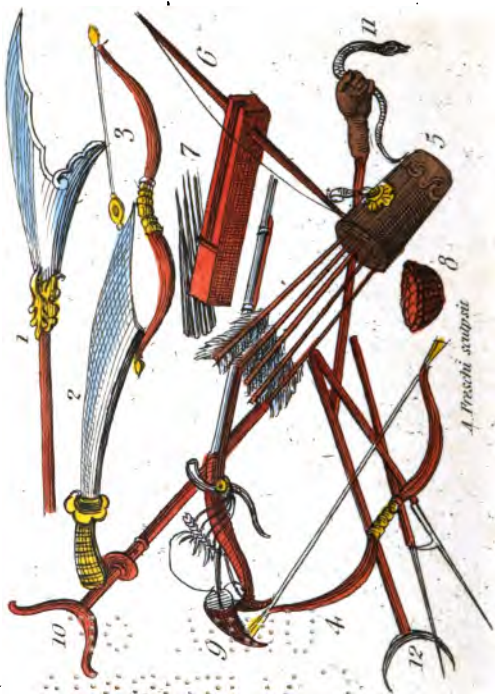


Tay-Connng divided it into five corps, in allusion to the five planets.

Other generals range their battalions so as to imitate the famous dragon and the mysterious tortoise.

These tactics are not so absurd, as that of a general, who, in a campaign in Sicily, disposed his army according to the form of a human body, namely, head, arms, body, and legs. He was completely beaten, and thus received the just reward for his puerile idea.

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# IMPLEMENTS of WAR.

LANCES, MUSKET, BOWS, ARROWS, AND  
OTHER MILITARY WEAPONS.

1. *The Halbert, the head of which is iron, extremely broad and sharp. It is rather an object of parade than of real utility in war. It is borne in the retinues of the emperor, and those of the viceroys, and other principal mandarins.*
2. *A broad Scymetar for the use of the cavalry.*
3. *A Chinese Bow. In the middle of the string is a plate of ivory or metal for fixing the arrow, and throwing it with greater strength.*
4. *Another Bow without a central plate.*
5. *A Quiver of Arrows.*
6. *A Cross-bow.*
7. *Darts proper to be thrown with a cross-bow.*
8. *A Basket, containing leaden balls, which are also thrown from a cross-bow.*
9. *Musket, or Matchlock. To the butt of this weapon is suspended a bag containing the matches and two horns, one for powder, the other for lead or balls.*
10. *Iron Crook for supporting the musket when it is to be discharged.*

11. *Hand of Justice, which is carried in the trains of the emperor and the viceroys. It is a carved hand grasping a serpent, which is, in the Chinese, as in the Grecian mythology, the emblem of prudence.*
  12. *Three kinds of Lances; one of straight iron, another of the same with a hook added; and the third of iron, headed with a crescent.*
- 

**T**HE Chinese and Tartar horsemen, neither have carbines nor pistols. They are armed exclusively with lances and sabres. They learn to do feats of agility and equilibrium upon their horses in the manner of Astley's, Crossman's, and Davis's companies in England, and of that of Franconi in Paris.

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**PUTTING the FINGERS to the RACK.**

METHOD OF PUTTING THE FINGERS TO  
THE RACK.

BETWEEN the fingers of the culprit are put small pieces of perfectly round wood, nearly half way up the finger; then, by means of strings, all these pieces of wood are closed together, crushing and almost dislocating the fingers.

A similar punishment is ordinarily inflicted on women of dissolute lives: it is one of those wretched females who is represented in the annexed engraving.

Racking the fingers, and the compression of the ankle, are also employed as means of punishment and interrogation in criminal proceedings. Not only the accused, but also the witnesses who are suspected of not giving faithful evidence,



are put to this cruel trial. Another mode of putting the *question* is by giving blows with a wooden instrument, in shape like the sole of a shoe. The pain of this is so exquisite, that it is almost impossible for a man to receive five blows without fainting away.

Such were the odious inquisitorial means put in force in the middle of the last century, against the European missionaries and their neophytes. Kien-Long had not then repealed them, and all those who professed Christianity were severely punished on that occasion.

---

I HAVE now brought to a close this laborious compilation, the difficulty of which must not be estimated by the extent of the volumes, but by the great number of facts which it contains, and which it has been my object to bring into a small compass.

I have treated each of the engravings as the summary of a chapter, into which I have brought every thing I could gather, far and near, relative, in any way, to the subject. It has not always been in my power to observe the same methodical arrangement in my descriptions which has been adopted in the Plates, particularly in my occasional digressions.

I have bestowed all the care on the work which I was capable of; at the

same time I do not pretend that my reader, by the perusal of this sketch, ought to dispense with the excellent works which we already possess on China: my aim has been, to furnish a compendium of every thing either of curiosity or of interest, which China affords.

Far from having presumed to lay down any new system on the antiquity and origin of the Chinese; far from having had the vanity to pretend to clear up intricate points: to which the most learned of all ages have discovered insurmountable barriers; my sole view has been, to collect such facts as had been hitherto made known, and, where it was possible, to bring forward others which were either new, or which were so little known in Europe, that they would still possess the merit of novelty.

THE END.

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